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A case study analyzing the traits, programs, actions, and beliefs necessary to overcome the correlative relationship between high free and reduced lunch rates and low standardized test scores

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A CASE STUDY ANALYZING THE TRAITS, PROGRAMS, ACTIONS, AND BELIEFS NECESSARY TO OVERCOME THE CORRELATIVE RELATIONSHIP BETWEEN HIGH FREE AND REDUCED LUNCH RATES AND LOW STANDARDIZED TEST SCORES

An Abstract of a Dissertation

Submitted

in Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

Approved:

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ABSTRACT

As the K-12 student population in Iowa continues to become more socio-economically challenged, as evidenced by a continued increase in the free and reduced lunch rates for schools in Iowa, a demand for increased student performance on standardized tests is growing. This dichotomy proves challenging to schools. In general, schools with a higher rate of identification of students eligible for free and reduced lunch rates produce lower achievement scores on standardized tests. The purpose of this study was to (1) Identify the strength of the corollary relationship in Iowa between free and reduced lunch identification rate and 4th grade achievement on Iowa Test of Basic Skills Reading Comprehension Test and (2) To determine if a case study of two schools, who overachieve the expected trend line for 4th grade achievement on Iowa Test of Basic Skills Reading Comprehension Test, can identify traits, programs, practices and beliefs that can account for this over-achievement.

A multi-methodology, both quantitative and qualitative, approach was used for the purpose of this study. Survey questions, teacher/administrator interviews, and classroom observations were conducted to complete a constant comparative case study on two rural Iowa schools whose 4th grade ITBS reading comprehension scores are higher than their identified free and reduced lunch rate would predict. Four research questions guided this study: (1) Does a statistically significant corollary relationship exist between socioeconomic status (SES), as measured using the free and reduced rates of Iowa Schools, and the fourth-grade Iowa Test of Basic Skills (ITBS) reading comprehension proficiency scores? (2) What traits, programs, actions, and beliefs do high-achieving

schools and generally accepted best-practice reading instuction share? (3) Do common traits, programs, actions, and beliefs exist between two schools that both overachieve the expected trend line? (4)Can the common traits, programs, actions, and beliefs of two overachieving schools explain and account for their higher than expected fourth-grade reading test scores?

The following conclusions were reached in the course of this study: (1) A strong, statistically significant corollary relationship exists bewteen the fourth-grade reading comprehension scores on the Iowa Tests of Basic Skills and the free and reduced lunch rate of schools in Iowa. (2) The corollary relationship beween the fourth-grade reading comprehension scores on the Iowa Tests of Basic Skills and the free and reduced lunch rate of schools in Iowa is not absolute—it can be overcome. (3) Eight Common traits, programs, actions, and beliefs of overachieving schools can explain and account for higher than expected fourth-grade reading test scores.

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I could not have completed this process without the support of both the Ballard Community and College Community School District Boards of Education. They too realized that the Doctorate undoubtedly divides a leaders attention. Completing a Doctorate while a full time Superintendent is challenging and their support and encouragement has been invaluable.

This document would not have been possible without the help, guidance, and support of my Doctoral Committee Chairs, Dr. Robert Decker and Dr. Victoria Robinson. Dr. Decker—I thank you for getting me started and Dr. Robinson—I thank you for transitioning to my Chair upon Dr. Decker's retirement. I owe both of you a debt of gratitude. Each of my committee members has helped in innumerable ways and each of you, Dr. Gilson, Dr. Schares. Dr. Benson, and Dr. Callahan (retired), have my thanks.

I cannot tell you how thankful I am for the administration and teaching staffs of schools A and B. They are the heart and soul of this study. Without your permission and willing participation, this document would have not been possible. School administrators and teachers work hard. Anything more on their plate is asking a lot, and not one staff member at either school ever hesitated in participating and helping where available.

What both Districts have accomplished in working with students to ensure that they can read is amazing. Their hard work and caring attitude should help shine a light on what a group of committed adults can do to help and improve students when working together.

Nothing written on a page can truly convey the sense of gratitude to those listed and their assistance in achieving a life long goal. I hope that in some small way I have positively contributed to your life as you have undoubtedly contributed to mine.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Since the mid-1960s, beginning with a study by Samuel Coleman and his associates, (Coleman et al., 1966), the correlative relationship between poverty and school achievement has been studied and debated. Study of this topic has intensified as the number of students identified for free and reduced lunch (SES students) has increased in the United States. The awareness of and determination to ensure that those students who are economically challenged achieve academically at high levels has risen into the consciousness of the American school community. James Samuel Coleman was a renowned sociologist and researcher retained by the U.S. Department of Education in the early 60s. Along with several others, he conducted a comprehensive study on educational equality in the United States. The report was massive (more than 700 pages) and comprehensive. It focused on a number of issues relating to schools, children, and achievement. The report, *Equality of Educational Opportunity (*1966*)*, was originally commissioned to determine if disparate school funding impacts student learning.

Interestingly, the 1966 report found that although funding does impact student learning, there are far more pronounced and lasting impacts on education than funding. "A more precise reading of the. . . report [shows] that student background and socioeconomic status are much more important in determining educational outcomes than are measured differences in school resources" (Hanushek, 1998, p. 15). The report clearly indicated a strong correlation between socioeconomic status and school achievement. Although numerous studies, articles, books, and dissertations have come to

the same conclusion as Coleman over the intervening years, the impact or effect of this correlation between socioeconomic status and achievement still exists today.

Although the causal nature of the relationship between socioeconomic status and achievement is still debated, it is generally accepted the two are negatively correlated—simply stated, students in America whose families qualify for free and reduced lunches generally have lower standardized test scores. Similarly, schools with higher percentages of free and reduced lunch students generally have lower standardized test scores. Independent studies by Loveless (2012), Rampell (2009), and Preis (2009) all show, with a focus on different standardized tests, that this correlation does exist. But is this correlation absolute? Can students and schools beat the odds?

Research would say that the correlation or odds can be overcome—over time it indicates that high-achieving schools and overachieving schools, regardless of student composition, implement similar best practice strategies and programs for use in student reading instruction. Simply, good teachers, coupled with sound methodology and practice, achieve results. These results can be achieved despite socioeconomic status. Three major sources (Chenoweth, 2007, 2009a, 2009b; National Reading Panel, 2000; and University of Oregon, 2006) all agree that a focus within achieving schools is the tenacious use of data—any and all they can find—and the very specific use of individual student data to guide and inform instruction. These achieving schools also commit to a sequenced, job-embedded professional learning program targeting teacher practice and tools that improve student reading performance (“Characteristics,” 2004). It is evident that achieving schools, although not uniform or identical, share numerous traits that broad

research identifies. Further, these same traits, implemented with fidelity, can break the correlative relationship of socioeconomic status and standardized achievement.

Purpose of the Study

This dissertation explores the correlation between socioeconomic status and standardized test scores along with factors leading to strong standardized reading test scores in schools. The research for this dissertation focuses on whether a correlative relationship exists between the fourth-grade ITBS reading comprehension scores of Iowa students and their school's SES rate. Further, two schools similar in size and demographics, both overachieving the expected fourth-grade ITBS reading comprehension scores, were studied to determine if, through a case study of each, using a constant comparative study, the researcher and data determines what traits, programs, actions, and beliefs exist to account for this unexpected result. Although much research exists exploring the relationship between achievement scores and SES, little research exists surrounding Iowa fourth-grade reading comprehension scores and SES. And little if any research exists in a case study format comparing similar schools in Iowa that overachieve expected standardized reading score results. Research results from this study provide insight for school leaders, teachers, and policy makers about the correlation between test scores and SES along with the traits, programs, actions, and beliefs necessary to overachieve expected outcomes.

Statement of the Problem

This study researches and explores the similarities in traits, programs, actions, and beliefs of similarly sized and demographically comprised school districts that overachieve the expected SES/ITBS Achievement trend line in fourth-grade reading comprehension test scores.

Definition of Terms

SES: an initialism for the socioeconomic status of a student. When in the education realm, SES is usually used to refer to a student or family that qualifies for free or reduced lunch as defined by the National School Lunch Program guidelines.

ITBS: an initialism for Iowa Tests of Basic Skills. This test is a "type of test, assessment, or evaluation which yields an estimate of the position of the tested individual in a predefined population, with respect to the trait being measured." (http://en.wikipedia.org/wiki/Norm-referenced_test)

Proficient: using the ITBS assessment, any student who scores in the 41st percentile or above.

Percent Proficient: the percent of students in a given group who meet proficiency standards.

High-Achieving Schools: those schools that achieve at advanced levels as defined by the individual test administered.

Overachieving Schools: those schools that overachieve the expected standardized test results expected when factoring in the school's demographic characteristics.

90/90/90 Schools: schools whose student body is 90% free and reduced, 90% minority, and 90% proficient on standardized tests; a similarly comprised school is sometimes called a Beat the Odds® school.

Research Questions

1. Does a statistically significant corollary relationship exist between socioeconomic status (SES), as measured using the free and reduced rates of Iowa Schools, and the fourth-grade Iowa Test of Basic Skills (ITBS) reading comprehension proficiency scores?
2. What traits, programs, actions, and beliefs do high-achieving schools and generally accepted best-practice reading instruction share?
3. Do common traits, programs, actions, and beliefs exist between two schools that both overachieve the expected trend line?
4. Can the common traits, programs, actions, and beliefs of two overachieving schools explain and account for their higher than expected fourth-grade reading test scores?

Explanations of Research Questions

Research Question 1. Does a statistically significant corollary relationship exist between socioeconomic status (SES), as measured using the free and reduced rates of Iowa Schools, and the fourth-grade Iowa Test of Basic Skills (ITBS) reading comprehension proficiency scores?

Statistical analysis of the free and reduced lunch rate and the fourth-grade proficiency levels, using the Iowa Tests of Basic Skills, of every school in the State of

Iowa will be conducted to determine if a statistically significant relationship exists between the two pieces of information.

Research Question 2**.** What traits, programs, actions, and beliefs do high-achieving schools and generally accepted best-practice reading instruction share?

Previous research and scholarly articles help to determine the generally accepted traits, programs, actions, and beliefs that are present in high-achieving and overachieving schools. High-achieving schools are defined as those that have high percentages of students proficient with regard to standarized test scores, while overachieving schools are defined as schools that overachieve the expected standardized test results when factoring in the school's demographic characteristics.

Research Questions 3 and 4. Question 3: Do common traits, programs, actions, and beliefs exist between two schools that both overachieve the expected trend line? Question 4: Can the common traits, programs, actions, and beliefs of two overachieving schools explain and account for their higher than expected fourth-grade reading test scores?

The second and third research questions of this study are explored using the constant comparative case study qualitative research method. Interviews within this protocol have been administered to the superintendent, elementary principal, curriculum coordinator, third-grade teacher, fourth-grade teacher, and Title I reading teacher of both Schools A and B. Observations were conducted of the building and district climate as well as reading instruction in the third and fourth grades. The results were categorized and analyzed to determine the longitudinal traits, programs, actions, attitudes, and beliefs

that each school district and their employees hold and exhibit that may illuminate the reasons for their respective overachieving on the ITBS.

Assumptions

The following assumptions are made for the purposes of this study:

1. The researcher is impartial in collecting and analyzing the data gathered.
2. The ITBS data are a valid means of measuring student achievement in reading comprehension.
3. SES status is uniformly determined across Iowa using Federal Free and Reduced lunch criteria.
4. Teachers and administrators responding to interview questions will be considered honest and accurate.

Limitations

The following limitations are noted for this study:

1. Only administrators, teachers, and others affiliated with two schools selected for this study are observed and/or interviewed.
2. Although the SES and achievement data covers nine years, it is impossible to determine whether all variables in the school have been constant for the same time period.
3. This study is a nonrandom–purposeful sampling, so generalizations to the broader universe of school facilities must be made cautiously.

4. The State of Iowa discontinued the use of ITBS tests in the 2011–2012 school year, but the results are the only longitudinal, standardized test data collected from every elementary school in the State at that time.

Methodology

This case study used mixed methods research to analyze state student achievement data and a case study of two schools involving computerized surveys, interviews, and site observations of classroom instruction to determine what, if any, commonalities exist between the two schools similarly overachieving expected fourth-grade ITBS reading comprehension scores. Research of literature reports that a correlative relationship exists between SES rate and standardized test scores. SES rate data and ITBS proficiency data from 2002 to 2011, collected and stored by the Iowa Department of Education on the EDInfo website, was analyzed to determine if a correlative relationship exists between the SES rate of the schools in Iowa and their fourth-grade reading comprehension ITBS scores. A constant comparative case study was created and conducted with two schools, identified as A and B. Both schools A and B over time have overachieved the expected trend line for predicted standardized reading comprehension scores. The two schools are similar in demographics and size. The case study of each determined if traits, programs, actions, attitudes, and beliefs were identified that could lead to both schools overachieving the expected reading comprehension scores shown by the correlative trend line.

The use of mixed methods, both quantitative and qualitative, provides the researcher the ability to harness the inherent strengths of each type of research within one

study. Quantitative research provides the underpinnings for establishing the general correlation between standardized test scores and student SES and specifically the correlative relationship between fourth-grade reading comprehension test scores and student SES in the State of Iowa. Additionally, the use of gathered survey responses help establish the generally accepted best-practice traits, programs, actions, attitudes, and beliefs that lead to high achievement on standardized reading compreheinsion test scores. The qualitative interview protocol provides the researcher the "on the ground" research and interview evidence needed to determine what commonalities exist between the traits, programs, actions, attitudes, and beliefs of School A and B that have lead to the overachievement of expected reading test results for both schools.

The researcher used fourth-grade reading comprehension data from the Iowa Department of Education from the EdInsight website. EdInsight is a data storage website that collects and provides Iowa with consistent and accurate longitudinal information on education outcomes and statistics in general. ITBS test scores are norm-referenced, meaning that the analysis of scores and results categorizes or ranks each individual student's position to a predefined population. In essence, the test sorts, orders, and ranks individual student test scores. The reading comprehension scores were analyzed using Cohen's *d* and Pearson's effect size to statistically determine how large a corollary relationship exists between standardized test scores and SES status.

A constant comparative study was conducted using interviews of various school employees in Schools A and B along with observations of the school and observations of teaching of reading.

It is important to note that one prime goal of the use of a constant comparative study is to "derive (grounding) theory," not to simply process data (Lincoln & Guba, 1985, p. 339). The interviews and observations of classrooms may take on a flair of interpretive research as opposed to standard qualitative research because the flexibility provided by interpretive research was necessary to gain the most information and meaning during both the classroom observations and interviews. According to Smith (1992), interpretive research affords the researcher three key tools: first, self-inquiry is seen as a useful tool of analysis; second, the concept of "absolute minimums" is set aside, allowing the researcher to vary questions from setting to setting in order to obtain the optimal interpretation; and third, the procedural choices are not constrained by a desire for objectivity. Since so much of the information was gained through the filter of the researcher and the anecdotal evidence gathered during face-to-face interviews of the respondents, it was critical to have this flexibility during the qualitative research. Interview subjects included the elementary principal and at least four teachers from each school who represent various grade levels and Title I program teachers.

The above information, when compiled, answered the research questions outlined in the research project. The methods used were chosen to most effectively answer the research questions by comparing any data points, both qualitative and quantitative.

Organization of the Study

This dissertation consists of five chapters that are organized in the following manner.

Chapter 1 includes an introduction to the study, problem statement, statement of purpose, questions guiding the research, assumptions, limitations, definition of terms, and a statement of significance.

Chapter 2 contains the literature review pertinent to the impact of socioeconomic status on student achievement and research defining common themes among high-achieving schools.

Chapter 3 consists of a description of the procedures, instrumentation, methodology of research, and general design of the study.

Chapter 4 presents and analyzes the data obtained by the study.

Chapter 5 includes the summary of results, conclusions, and associated recommendations related to the study and for further study.

CHAPTER 2

A REVIEW OF LITERATURE

Since the mid-1960s, following a study by Samuel Coleman and his associates (Coleman et al., 1966), the correlative relationship between poverty and school achievement has been studied and debated. Study of this topic has intensified as the number of students identified for free and reduced lunch (SES) has increased in the United States. The awareness of and determination to ensure that those students who are economically challenged achieve academically at high levels has risen into the consciousness of the American school community. James Samuel Coleman was a renowned sociologist and researcher retained by the U.S. Department of Education in the early 60s. Along with several others, he conducted a comprehensive study on educational equality in the United States. The report was massive (more than 700 pages) and comprehensive. The report focused on a number of issues relating to schools, children, and achievement. The report, *Equality of Educational Opportunity*, was originally commissioned to determine if disparate school funding impacted student learning.

The 1966 report indicated that funding does impact student learning, but more importantly, that there are far more pronounced and lasting impacts on education than funding. "A more precise reading of the. . . report [shows] that student background and socioeconomic status are much more important in determining educational outcomes than are measured differences in school resources" (Hanushek, 1998, p. 15). The report clearly indicated a strong correlation between socioeconomic status and school

achievement. Although numerous studies, articles, books, and dissertations have come to the same conclusion as Coleman over the intervening years, the impact or effect of this correlation between socioeconomic status and achievement, or even the existence, is still debated today.

Figure 1, taken from *The New York Times* economic blog (Rampell, 2009), shows that a student's family income, or socioeconomic background, clearly correlates with SAT test scores. One should note that the income reports are voluntary, self-reported, and about 2/3 of all test takers reported income. With those limitations in mind, the clear trend for individual student SAT test takers in 2009 was that those from more affluent households scored better than those from less affluent households in all areas of the SAT.

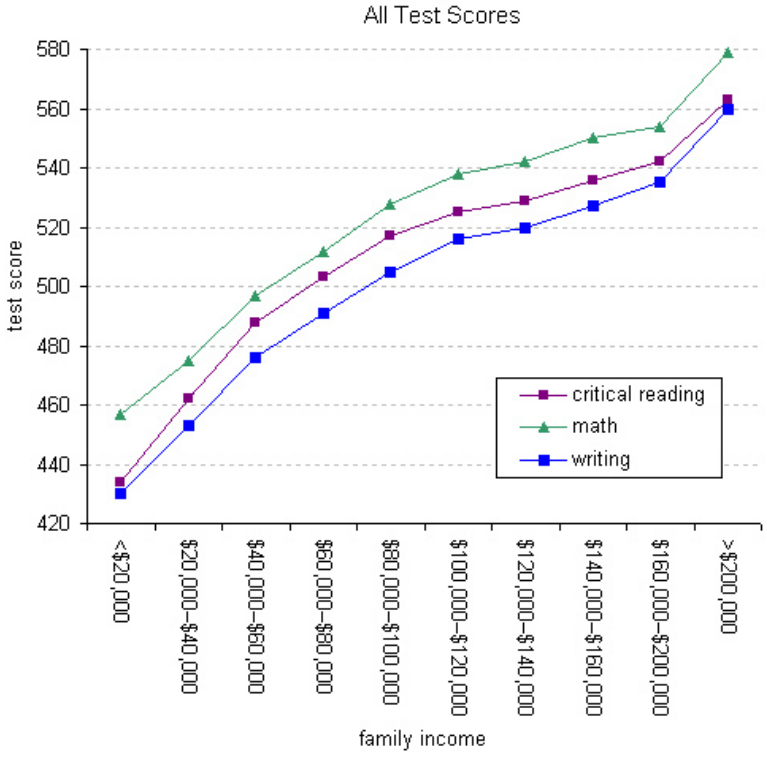

Figure 1. SAT/Income Comparison

Illustrative of this trend, households earning less than $20,000 annually averaged between 420 and 458 on critical reading, math, and writing scores, respectively, whereas households earning more than $200,000 annually averaged between 560 and 580 on critical reading, math, and writing scores (Rampell, 2009). Rampell's data showed an approximate 35% average increase in achievement scores on the test comparing the lowest and highest earning brackets in the study, clearly indicating a correlation between SES and SAT achievement.

Does the work, research, and theory of Coleman (Coleman et al., 1966), Hanushek (1998), and Rampell (2009) regarding SES and achievement transfer to elementary reading scores? Much evidence and many studies would indicate that a correlative relationship does exist. These examples include Loveless (2012) and Pries (2009).

The Brown Institute ("How well," 2009) study explores the test achievement gap between those students completing the National Assessment of Educational Progress (NAEP) in 2008 who are identified as non-socioeconomic students compared to students who are identified as socioeconomic students (students qualifying for free and reduced lunches). These designations are derived by participation in the federal government's free and reduced lunch program. Those who qualify for free and reduced lunches are referred to as SES students, whereas those who do not qualify are referred to as non-SES students. It is clearly indicated in the Institute's research that statistically significant gaps exist when comparing the scores of the two groups in both reading and math across in all grade levels tested: fourth, eighth, and eleventh grades (see Table 1). More importantly

for our purposes, the reading score gap for fourth-grade students on the reading portion of the test of 0.75 is the largest gap of all three grades in reading and indicates a deviation of .75 standard deviations for test participants (Loveless, 2012).

Table 1

NAEP Reading and Math Difference - Free and Reduced Lunch

Grade Level	Reading Score Gap	Math Score Gap
Grade 4	0.75	0.79
Grade 8	0.69	0.76
Grade 11	0.53	0.68

The State of Missouri completed a report presented in the spring of 2009 exploring a number of educational issues with regard to the schools in the state. One portion of this report--*An Examination of Variables Related to Academic Growth and Achievement in Missouri Elementary and Middle School Students*--studied the effect or correlation, if any, of a number of variables upon achievement scores. SES status was one variable studied in the research. For the research into SES, "a sample of elementary and middle schools (n = 308) reflecting the demographic profile of Missouri were selected for this study" to determine the effect SES had on MAP (Measures of Academic Progress) test scores. A correlative line exists between the two variables. Further, the report showed that a correlation coefficient of negative 0.791 existed when comparing SES and the MAP scores on the communication arts portion of the MAP test—a similar

test area to the ITBS reading comprehension test (Pries, 2009, pp. 7–10). This measure, like both the ACT and NAEP, again indicates that a strong correlation exists between a student's identification and participation in the free and reduced lunch program (SES) and standardized test scores. The connection is shown visually in the charts below.

The study additionally put schools into one of four quadrants based on test results. For math (Figure 2) and communication arts (Figure 3), there was a clear indication that schools with 50% or more of students qualifying for free and reduced lunch schools, indicated with a purple O, fell within the underperforming quadrant determined by the study (Preis, 2009).

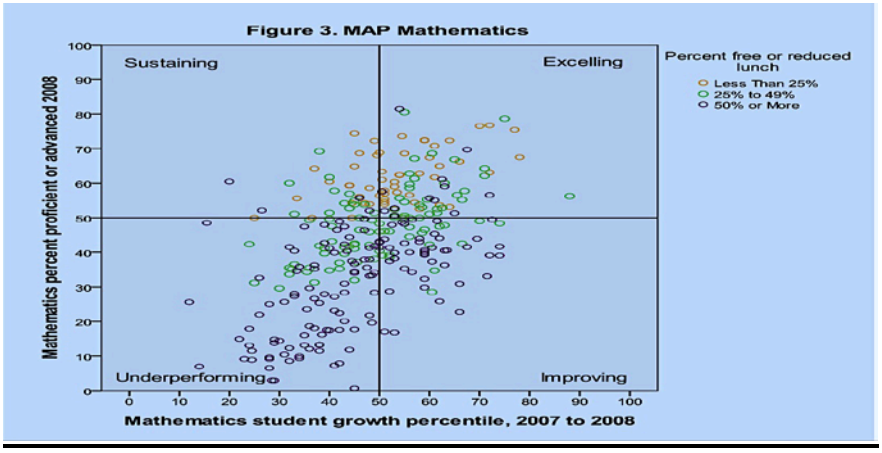

Figure 2 Map Mathematics

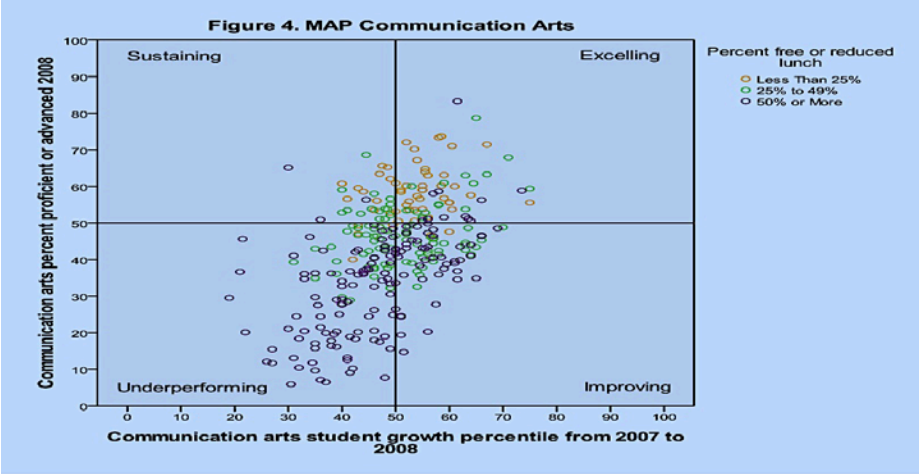

Figure 3 Map Communication Arts

Looking at a second state's data, Melissa Silverberg (2015), in an investigative newspaper series for the *Elgin Daily Herald*, examined Illinois' achievement scores and the correlation between socioeconomic status and achievement. The state of Illinois uses the Illinois State Achievement Tests. This battery of assessments tests students in third through eighth grades in both reading and mathematics. Silverberg combined the reading and mathematics achievement scores for third through eighth grade students in each Illinois school district over a 10-year period. Figure 4 shows the percent of students who met or exceeded state achievement targets for each year by school district by free and reduced identification rate. The identification rates are reported by decile. For example, the blue dotted line represents school districts with identified free and reduced rates between 0% and 9.9%.

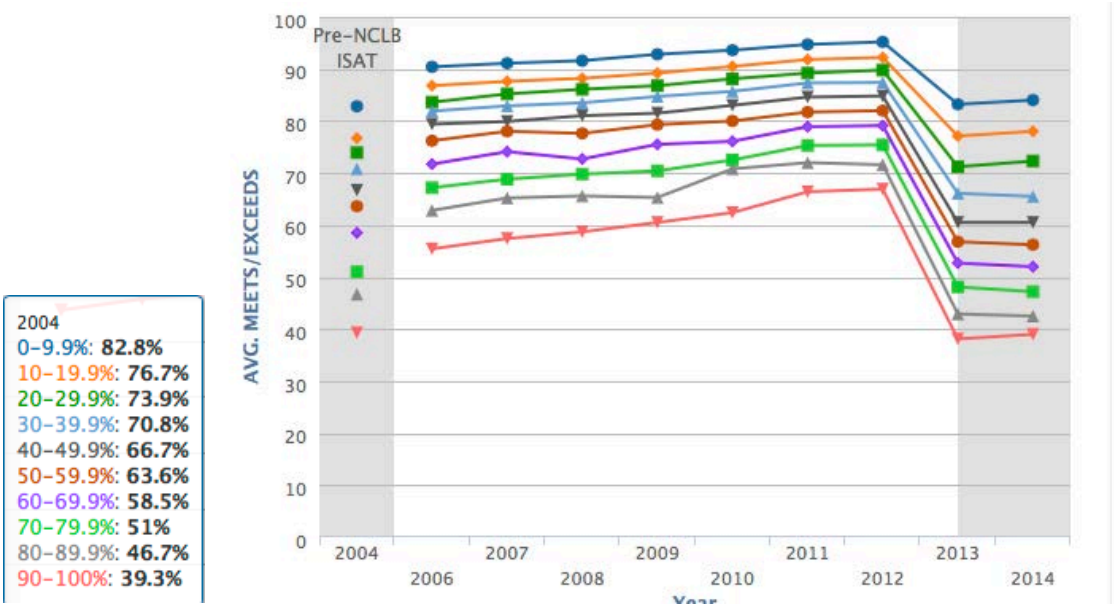

Figure 4 ISAT and School Free and Reduced Lunch Rate

Again, using a different standardized assessment in a different state, the correlative relationship still exists between low socioeconomic status and standardized test scores.

From a number of sources, using varied standardized tests and test results, we do see, again and again, clear evidence that a corollary relationship exists between socioeconomic status and student achievement. Whether we look at the SAT, MAP tests in Missouri, or ISAT tests in Illinois, a clear relationship between socioeconomic status and standardized test achievement exists and persists. This relationship persists regardless of age, race, or geographic location, clearly indicating a strong correlation.

Although a strong statistical, correlative relationship does exist between socioeconomic status and achievement on standardized tests (Rampell, 2009; Loveless, 2012; Preis, 2009; Silverberg, 2015), this relationship is not absolute. In other words,

some schools overachieve the expected result when looking at the correlative relationship or a trend line. Much like the consistent correlative relationship between achievement on standardized tests and the socioeconomic status of individual students within schools, it would makes sense that in study after study, schools with higher rates of students who qualify for free and reduced lunches report lower overall achievement scores. However, high-achieving schools and overachieving schools do exist despite the strong statistical relationship between standardized test results and a school's percent of students receiving free and reduced lunch.

Numerous sources, including the work of Chenoweth (2007, 2009a), Coley and Baker (2013), The National Reading Panel (2000), and The University of Oregon (2008) suggest that this strong correlation can be overcome. An outline of characteristics of effective reading programs, characteristics of high-achieving schools and overachieving schools of poverty suggests that, although a strong correlation exists, it is not exact or absolutely determined. With the right work and implementation of basic ideas, schools with a large percentage of students identified as SES can and do both overachieve expected results and achieve at high levels. Intentionality in details and implementation with fidelity of ideas, programs, and beliefs make the difference in schools with demographics stacked against them for reaching high achievement. Table 2A and 2B outlines characteristics of both best-practice reading programs and high-achieving schools of poverty. One can see that there is certainly commonality between the two: a focus on academic achievement, frequent assessment, collaboration of both teachers and students, and an intentional devotion of time to literacy. All of these best-practice

reading strategies along with best-practice strategies pertaining to disadvantaged schools can and do make a difference (Chenoweth, 2007, 2009a, 2009b; Coley & Baker, 2013; National Reading Panel, 2000; University of Oregon, 2006).

Table 2A

Research Findings for Overachieving Schools

It's being done; how it's being done	**Characteristics of effective elementary schools in poverty areas**	**Big ideas**	**Poverty and education: Finding the way forward**
They don't teach to the state test	Strong effective instructional leadership	Focus on academic improvement	High quality teachers
They have high expectations of their students	Clear school mission	Curriculum choices	Adopting effective school practices
They know what the stakes are	Ongoing, yearlong staff development for curriculum improvement	Frequent assessment	Broaden access to high quality preschool
They embrace and use all data they can find	Communication and collaboration among teachers	Written responses in performance assessments	Equitably and adequately fund schools
They use data to focus on individual students, not just groups of students	More experienced principal	External scoring	Increase awareness of poverty and its consequences on students
They constantly reexamine what they do	Greater parent involvement	Collaboration	Improve measurements of poverty
They embrace accountability	Positive home school relationships	Frequent feedback by teachers to students	

(table continues)

It's being done; how it's being done	**Characteristics of effective elementary schools in poverty areas**	**Big ideas**	**Poverty and education: Finding the way forward**
They make decisions on what is good for kids not adults	Good working relationship with central administration	Devote time to literacy	
They use school time wisely	Community agencies provide services to schools	Action research and mid-course corrections	
They expand the time students, especially struggling students have in school	Teachers convey task orientation—goal of every lesson and why it is important	Reassign staff to right fit—the right people on the right bus in the right seat	
They do not spend a lot of time disciplining students in the sense of punishment	High expectations for students		
They establish an atmosphere of respect	Enthusiasm among teachers	Intense focus on data analysis	
They like kids	Teachers display clarity and directness	Common assessments	
They make sure the kids who struggle the most have the best instructors	Positive classroom climate	Value of every adult in building	
Principals are a constant presence	Systematic curriculum-based assessment to monitor student progress	Cross disciplinary integration	

(table continues)

It's being done; how it's being done	**Characteristics of effective elementary schools in poverty areas**	**Big ideas**	**Poverty and education: Finding the way forward**
Although the principals are important leaders, they are not the only leaders	Strong emphasis on reading	Curriculum choices	
They pay careful attention to the quality of the teaching staff	Maximize instruction time for reading (21/2 to 3 hours	Frequent assessment	
They provide teachers w/ time to meet to plan and work collaboratively	Redoubling teaching efforts when students have trouble	Written responses in performance assessments	
They provide teachers time to observe each other	Integrating of reading and writing activities	External scoring	
They think seriously about professional development		Collaboration	
They assume that they will have to train new teacher more or less from scratch and carefully acculturate all newly hired teachers		Frequent feedback by teachers to students	

(table continues)

It's being done; how it's being done	**Characteristics of effective elementary schools in poverty areas**	**Big ideas**	**Poverty and education: Finding the way forward**
They have high quality, dedicated, and competent office staff who feel themselves part of the educational mission of the school		Devote time to literacy	

(Chenoweth, 2007, 2009a; Coley & Baker, 2013; National Reading Panel, 2000; University of Oregon, 2008)

Table 2B

Research Findings for Overachieving Schools

National Reading Panel	**9 Components**	**A Closer Look**
Phonemic Awareness Instruction	Phonemic Awareness	Phonemic Awareness
Systematic Phonics Instruction	Phonics and Decoding	Decoding
Systematic Synthetic Phonics Instruction	Fluency	Phonics
Fluency Instruction	Vocabulary	Fluency
Guided oral reading	Text Comprehension	Word Recognition
Teacher, peers, others	Written Expression	Listening Vocabulary
Vocabulary Instruction	Spelling and Handwriting	Speaking Vocabulary
Task restructuring	Screening and Continuous Assessment	Reading Vocabulary
Repeated exposure	Motivating children to read	Writing Vocabulary

(table continues)

National Reading Panel	9 Components	A Closer Look
Variety of Reading Comprehension Strategies		
Formal PL Regarding Strategies		

(Learning First Alliance; 2013; Learning Point Associates, 2004; National Reading Panel, 2000)

Although one can point to best-practice strategies within the classroom that aid in increasing reading achievement like those pointed out above, these alone will not allow an impoverished school to overachieve. Much more needs to take place—structurally with the school day, in regard to climate, in regard to teacher pedagogy and beliefs—to overcome the effects of poverty on student achievement. Chenoweth (2007), Coley and Baker (2013), Tableman (2004), and the University of Oregon (2008) would all maintain that a combination of many things together can and will bring about success. Chenoweth stated that "successful schools. . . have done [the] original work of inventing the wheel by developing basic principles that all schools could use to ensure that all their students are learning" (p. 177). It is not one principal or one key idea that has made the difference in thousands of impoverished schools over time, but the combination of deeply held tenets and best practices.

One might ask what some of these tenets and practices are. First, there is no absolute list that one can go through like a checklist, but research indicates that there is

commonality among researchers and studies. Looking at only the five sources outlined in Table 2, one clearly sees patterns. Although none are identical, and honestly not close to identical, it is clear that each puts forth beliefs or actions that appear in the other research pieces. When looking for such overlap of beliefs in *It's Being Done (*Chenoweth, 2007*), How It's Being Done (*Chenoweth, 2009a*), Characteristics of Effective Elementary Schools in Poverty Areas (*Tableman, 2004*), and Big Ideas in Beginning Reading (*University of Oregon, 2006*)* the following seven themes appear:

1. A focus on curriculum
2. A belief that all students can learn at high levels
3. An embrace and use of data
4. Differentiation of instruction and student work driven by data
5. Great parent involvement/relationships
6. Staff longevity/dedication to students
7. Wise use of time/time devoted to literacy

It is impossible to improve what one teaches if one doesn't know what to teach. A focus on curriculum, and more specifically, a focus on what is to be taught is a common theme in schools beating the odds. This focus on what is being taught has several names, including *curriculum, academic content, learning targets*, and *standards and benchmarks*. Although they may carry different names, they all focus on what students should know, understand, and be able to do in a course or subject in school. Chenoweth (2009a) pointed out that this push for standards has gone on since the release of *A Nation at Risk* in 1983 ("A Nation at Risk," 1999) and was led by "a disparate crowd

of educators, business leaders, and politicians" in the early days to push for strong standards (Chenoweth, 2009a, p. 13). The push for standards has grown, however, over time to encompass most of the American educational community and has been posited as a prerequisite for school reform and improvement.

Almost all examples of improved student performance will include a look at the school's or district's standards and benchmarks. Those that underperform will usually find one of two things: (1) the standards and benchmarks are present but not used; (2) there really are no set standards and benchmarks. It was typical, well into the early 1990s, for schools to have no stated standards or benchmarks. In essence, schools had no precise idea what they wanted students to learn. Massachusetts embodied this state of being when it endeavored to improve the academic scores of all of its students. Its first step was to "state clearly what children should learn in school" (Chenoweth, 2009a, p. 8). Massachusetts educators knew that if they were to significantly improve student learning, they needed to identify concretely, and on a statewide basis, what students should know and be able to do. Once schools clearly establish what students should know and be able to do in any given course or subject, they must doggedly pursue and compile the best materials and interventions necessary to reach each student.

Having a well-defined curriculum and a number of targeted resources for teaching reading, a school must then go about creating and fostering high expectations for students. Tableman (2004) pointed out that the most effective teachers "expect. . . that every child can improve and move forward" (p. 2). But why do expectations matter? Simply, all human beings, and students specifically, tend to meet expectations. Tony

Robbins (2013), an American motivational speaker, indicated in many of his works that one of the six key human needs is an expansion of capacity, capability, or understanding. All of these are really about meeting expectations and strike at the heart of our desire to do so. Kenneth Williams, educational consultant and lecturer, supports this concept in many of his focus areas and presentations to educators around the country and the world. He challenges schools to ask this question very early on: "Have we clearly defined the essential learning outcomes that our students must master for success at the next course/grade level?" (Williams, 2015, slide 21). The simple truth is that there are no expectations to uphold or for students to meet if we have not set them. Once done, achieving districts expect all students to learn and master these common essential learnings. Williams would say that schools and teachers, by doing this, have "establish[ed] the bar," and that with that thought, there is a tenacity by both school and individual teacher to take each student "to and through the bar" (slide 20).

Our desire to meet expectations, to expand our capacity and capability, as Robbins (2013) would say, is a key to overachieving schools. These schools do not make excuses and do not teach to a subpar standard, but they do set quality essential learning and do everything in their power to ensure that each student meets the standard.

One defining characteristic of overachieving schools is a tenacious pursuit of and use of data. Schools that beat the demographic odds use data in multiple ways to impact student learning and test scores. They use data on both a building and system level as well as drill down to individual student data. As Datnow, Park, and Wohlstetter (2007) pointed out, "achieving schools play an important role by providing time for staff to meet

to discuss data" (p. 14). In order to really use data, time must be provided and afforded staff to do the work. This work often takes place in both group and individual settings.

In order to know what students know, a detailed analysis of student work and assessments must take place. We cannot fill learning gaps if we do not know where the gaps exist. In Bolsa Grande High School, teaching staff routinely meet as groups to discuss student achievement on a building level within their academic discipline. Two quotes below help to illuminate what this process means for teaching staff at Bolsa Grande. A math teacher at Bolsa Grande said that the interim assessment was useful "because it allows me to see what standards I need to focus on and whether they're improving or not" (Datnow et al., 2007). An English teacher at Bolsa Grande reiterated, "I'm really trying hard to go back to the standards that the majority of the class hasn't hit on... Let's see if I can teach it in a different way. Or maybe that's where I can talk to other teachers and ask how they did that." Some teachers also said they consulted their students after identifying weak areas, asking them if they had ideas" (Datnow et al., 2007, p. 36).

Similarly, Graham Road Elementary in Church Falls, Virginia uses a similar process in looking at data, but with individual students: "Teachers go over every test with each student to discuss their wrong answers so that any misunderstanding can be addressed immediately and don't compound." And when "teachers met to discuss test results, they realized that their students needed to radically improve their vocabularies" (Chenoweth, 2009a, p. 40). This work by teachers to really know what standards, individually and collectively, their students have met and not met allows for re-teaching

and relearning of critical information. Historically, schools would have taught the material, assessed the students, and then moved on to new material regardless of individual or group results. This use of data as a guiding force in driving teaching and learning seems ever present in overachieving schools.

Much research exists pointing to the use of a consistent reading block to improve student reading skills. Reading Rockets, a national literacy initiative offering information and resources on how young kids learn, stated that:

> Research shows that students need at least 90 minutes of uninterrupted reading instruction per day in order for sufficient student reading development, and that this instruction must be dense: systematically delivering explicit teacher directions; scaffolded over time; and differentiated across the classroom. ("An Example," 2013)

Many resources support the use of a robust reading block, including the National Reading Panel (2000), Learning Point Associates (2004), Learning First Alliance (2013), and Rocket Reading ("An Example," 2013). This time, set aside for the robust teaching of reading skills, is a key or hallmark in improving the skills of all students. This is supported by both Tableman (2004) and Richard Allington, Fein Professor of Education, University of Florida, Gainesville (Allington, 2002b). Both stress the importance of time, or as Tableman (2004) would say, teachers must "maximize instructional time for reading (p. 3). Allington, using a large study of first and fourth graders, determined that "when stuff dominates instructional time, warning flags should go up. . . there is a lot of stuff going on in less effective classrooms that is not supported by reliable evidence" (2002b, p. 742). Allington would even prefer a larger reading block than 90 minutes. He would advocate that "teachers [should have] children actually reading and writing for as much

as half of the school day" (p. 743). The wise use of time by staff for reading instruction and targeted reading instruction cannot be overlooked when determining those traits that allow some schools to overachieve.

The above sources show two things: (1) A corollary relationship exists between free and reduced lunch status and achievement on standardized test scores; and 2) schools implementing best-practice strategies in reading instruction and implementing purposeful programs and concepts to combat the effects of poverty are beating the expected negative correlation between SES status and standardized test scores. This should offer hope to all schools. It is heartening that, although a corollary relationship exists between SES status and standardized test scores, all students and schools can overachieve expected outcomes and achieve at high levels if the right conditions are nurtured, fostered, and put in to place. Let's not kid ourselves--this is hard work. It takes committed administrators and teachers who are willing to do the right things over time to help students succeed.

CHAPTER 3

RESEARCH DESIGN

Methodology

This case study used mixed methods research to analyze state student achievement data and conduct a case study of two schools involving computerized surveys, interviews, and site observations of classroom instruction. The research determined what, if any, commonalities exist in the traits, programs, actions, attitudes, and beliefs of two subject schools exhibiting similar demographic traits and similarly overachieving fourth-grade ITBS reading comprehension scores. A review of literature reports a correlative relationship exists between SES rate and standardized test scores. SES rate data and ITBS proficiency data from 2002 to 2011, collected and stored by the Iowa Department of Education on the EDInfo website, was used to determine if a correlative relationship exists between the SES rate of the schools in Iowa and their fourth-grade reading comprehension ITBS scores. A constant comparative case study was conducted with two schools, identified as A and B, that both, over time, have overachieved the expected trend line for predicted standardized reading comprehension scores. The two schools are similar in demographics and size. The use of questionnaires, interviews, and on-site classroom observations helped to determine if traits, programs, actions, attitudes, and beliefs could be identified that led to both subject schools overachieving on the reading comprehension trend line for both identified schools.

The use of mixed methods, both quantitative and qualitative, provides the researcher the ability to harness the inherent strengths of each type of research into one

study. Quantitative research provides the study the underpinnings of establishing the general correlation between standardized test scores and student SES, the generally accepted best-practice traits, programs, actions, attitudes, and beliefs that lead to high achievement on standardized reading comprehension test scores, and the correlation between fourth-grade reading comprehension test scores and student SES, along with questionnaire tabulation and analysis. Both data analysis of state reading scores and tabulations of quantitative computerized questionnaires lend the the project the objective view of quantitative research. The qualitative interview protocol provides the researcher the "on the ground" research and interview evidence needed to determine what commonalities exist between the traits, programs, actions, attitudes, and beliefs of Schools A and B that may have led to the overachievement of both schools.

Looking more precisely at the data collection or fourth-grade ITBS reading comprehension scores and their corollary relationship to free and reduced lunch rates, the researcher used fourth-grade reading comprehension data from the Iowa Department of Education from the EdInsight website. EdInsight is a data storage website that collects and provides Iowa with consistent and accurate longitudinal information on education outcomes and statistics in general. EdInsight contains the standardized ITBS test scores of all schools in the State of Iowa. ITBS test scores are norm-referenced, meaning that the analysis of scores and results categorizes or ranks each individual student's position in a predefined population. In essence, the test sorts, orders, and ranks individual student test scores. The reading comprehension scores were analyzed using Pearson's effect size, difference of means, and rejection of the null hypothesis to statistically determine how

large a corollary relationship exists between standardized test scores and SES status. The use of the three statistical practices, Pearson's effect size, difference of means, and rejection of the null hypothesis, determined the strength of any effect size and proves that any difference in test scores is statistically significant. In other words, is the difference in scores statistically significant rather than chance?

Once the corollary relationship was established, a constant comparative study was conducted using computerized surveys, interviews of various school employees in Schools A and B, along with observations of the school and observations of teaching of reading. A constant comparative study:

> combines inductive category coding with a simultaneous comparison of all social incidents observed. As social phenomena are recorded and classified, they also are compared across categories. Thus, the discovery of relationships, that is, hypothesis generation, begins with the analysis of initial observations, undergoes continuous refinement throughout the data collection and analysis process, and continuously feeds back into the process of category coding. As events are constantly compared with previous events, new typological dimensions, as well as new relationships, may be discovered. (Lincoln & Guba 1985, p. 335)

It is important to note that one prime goal of the use of a constant comparative study is to "derive (grounding) theory," not to simply process data (Lincoln & Guba, 1985, p. 339). The interviews and observations of classrooms may take on a flair of interpretive research as opposed to standard qualitative research because the flexibility provided by interpretive research was necessary to gain the most information and meaning during both the classroom observations and interviews. According to Smith (1992), interpretive research is a form of qualitative research but differs from traditional qualitative research in three ways: First, self-inquiry is seen as a useful tool of analysis; second, the concept of "absolute minimums" is set aside, allowing the researcher to vary questions from

setting to setting in order to obtain the optimal interpretation; and third, the procedural choices are not constrained by a desire for objectivity. Since so much of the information was gained through the filter of the researcher and the anecdotal evidence gathered during face-to-face interviews of the respondents, it was critical to have this flexibility beyond the normal constraints of qualitative research. Subjects included the district superintendent; elementary principal; first, second, third, and fourth-grade teachers; special education teacher(s), and Title I reading teacher(s). Through the use of multiple data points, both quantitative and qualitative, and through surveys, interviews, and observations, the research hoped to highlight those key factors allowing the two case study schools to overachieve the expected fourth-grade ITBS reading comprehension scores.

Population and Samples

A corollary relationship between SES and standardized test scores was explored using fourth-grade reading comprehension test scores results for the Iowa Test of Basic Skills for every school district in the State of Iowa from 2002 to 2011. Two schools with similar characteristics: size, demographic composition (including race and SES rates), and geographic location (rural Iowa) were recruited and used to conduct the interpretive constant comparative case study. These two schools were chosen as a nonrandom/purposeful sampling. Both Schools A and B clearly exceeded the expected fourth-grade reading test scores trend line of the Iowa Test of Basic Skills. Further, all consenting teachers and the building principal of both schools were part of the sample population. It should be further noted that these two demographically similar schools

were chosen in an attempt to minimize, without statistical analysis, the impact that other demographic factors can statistically play in standardized test results

Data Collection and Analysis

This methodology included 11 interviews and the observation of 10 classroom teachers. This type of research identified a critical need to have a format in place offering flexibility in gathering the most useful information and identifying ways to categorize and organize interview and observation data. When exploring qualitative analysis options for the study, for the reasons discussed previously, an interpretive research study using a constant comparative method was most appropriate.

The study format, classified as interpretive research, was used because of the flexibility afforded the researcher. The flexibility provided by qualitative interpretive research allows for the mining of the most meaningful information. According to Smith (1992) an interpretive study format allows the primary investigator latitude to probe with questions beyond the constraints of the interview and observation protocols and if necessary to dig further. The flexibility and latitude is critical in both the classroom observations and interviews. This latitude allows both the observations and interviews to be conducted in such a way that they are all based on the same protocol and/or questions, but may be tweaked by the principal investigator in order to gather the most useful information and meaning from the work. For example, interpretive research allows the interviewer or observer to deviate from the prepared protocol or interview questions to obtain the most useful information at the time. Since so much of the information was gained through the filter of the researcher and the anecdotal evidence gathered during live

observations of classrooms and live interviews, it was critical to have this flexibility of both the constant comparative and interpretive qualitative research.

Lincoln and Guba (1985) outlined in their text *Naturalistic Inquiry* the constant comparative method used during observation, interviews, and data organization and analysis. The first step asks the researcher to compare information gathered to categories designated either before or during the research. Initially, each research question was considered a category. Therefore, as questions were asked during the interview and responses given, every response that could be tied directly back to one of the five research questions was coded to that question. As noted previously, interview questions were designed to gather a broad range of information that later could be coded to a particular research question or set of questions, if applicable. Classroom observations were conducted and coded in the same manner. Additionally, since this was interpretive research and the researcher was consequently allowed to probe interview answers with follow-up questions, further meaningful information was gained; this was also coded to the applicable research question or questions.

The second stage of the constant comparative method involved a refinement and synthesis of the information gathered and coded in the first stage. As Lincoln and Guba (1985) suggested, this was not a distinct and separate action, as the "intuitiveness" of the first stage morphed into the more exacting nature of the second stage. This stage was marked by data analysis efforts that began to further define the categories for coding—at this stage, a number of subcategories presented themselves under the original questions.

In this stage, additional interviews began to help solidify categories and to bring into focus the collected data.

The third stage in the constant comparative study called “Delimiting the Construction” worked toward cementing the categories and the placement of key information in each. By this point, little to no work was done adding categories, but some were merged or refined. Using this constant comparison method allowed for continual categorization and filtering of interview and observation information into meaningful and useful data to be used for the findings and conclusions of the study.

CHAPTER 4

FINDINGS

QUANTITATIVE ANALYSIS OF IOWA ITBS RESULTS AND NARRATIVE ANALYSIS OF SITE VISITS, INTERVIEWS, AND SURVEY RESULTS

Quantitative Findings: Analysis of Research Question 1

Does a statistically significant corollary relationship exist between socioeconomic status (SES), as measured using the free and reduced rates of Iowa Schools and the fourth-grade Iowa Test of Basic Skills (ITBS) reading comprehension proficiency scores? In Figure 5, district SES rate data and fourth-grade ITBS reading proficiency data from 2002 to 2011, collected and stored on the Iowa Department of Education website (Education Statistics | Iowa Department of Education, 2010), were formatted to determine the average percent proficient in fourth-grade reading comprehension for each school in the State of Iowa along with the average SES rate for each school in the state for that 10-year period. Figure 5 depicts the results of the described data collection plotted on a graph. The Y axis depicts average fourth-grade reading comprehension proficiency rate, and the X axis depicts average district free and reduced lunch rate. Note that each data point represents one school district in the State of Iowa. A cursory look at the graphed information seems to indicate a clear correlative trend exists in Iowa between a school's percent of identified SES students and reading proficiency in the fourth grade.

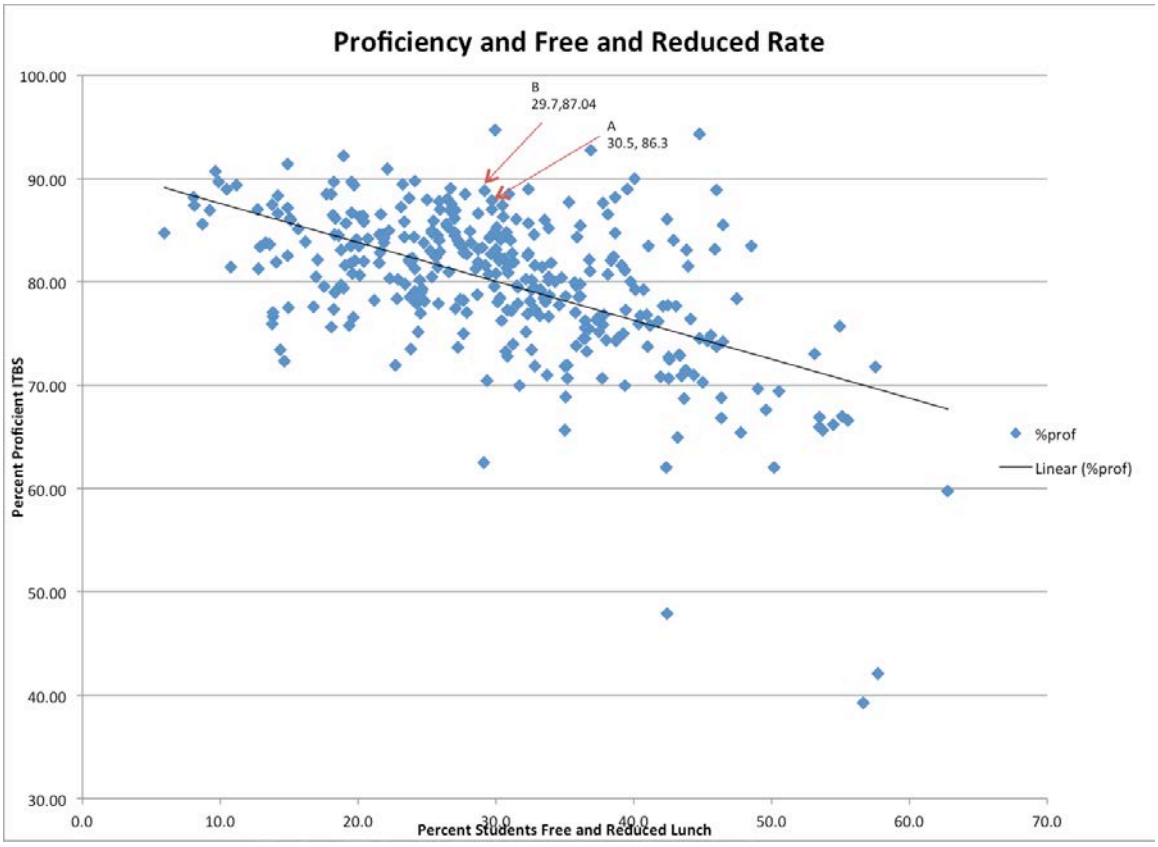

Figure 5 Iowa School ITBS Achievement and SES Rate

What is the true corollary relationship between the two data points? Using a Pearson's *r* calculation (see formula below), the data points indicate a negative .561 (-561) corollary relationship. Onlinestatbook, produced by Rice University, indicates that a perfect correlation would be 1, positive or negative, and a set of data with no correlation would be 0. So it is clear that a corollary relationship exists between the two sets of data. It is generally accepted statistical practice to look at the strength of a correlation, as shown in Table 3.

Table 3

Correlation Strength

Value of Correlation		Value of Correlation	Strength of Relationship
-1 to -.5	or	1.0 to .5	Strong
-.5 to -.3	or	.3 to .5	Moderate
-.3 to -.1	or	.1 to .3	Weak
-.1 to 0	or	0 to .1	None or very weak

(Explorable.com, 2009)

The negative correlation of -.561, meaning as SES rate increases test score achievement decreases, is a strong correlation. This would indicate that in Iowa, as with the other examples discussed in this paper, a strong relationship exists between socioeconomic status and achievement.

Further, the value of can determine how confident the researcher can be that the difference between the means of the higher achieving 50% of schools in Iowa and the lower achieving 50% of schools is statistically significant. The ITBS reading comprehension reading proficiency score of those schools comprising the half of schools having the lowest free and reduced lunch rate is 82.99%. The mean ITBS reading comprehension reading proficiency score of those schools comprising the half of schools with the highest free and reduced lunch rate is 76.92%. A 95% confidence interval is typical and standard practice for research. The data for this research using a calculation and Z table for confidence intervals used a 97.5 % confidence interval, a more stringent

calculation than required or expected. Calculations show that there is a 97.5% chance that the true difference of the means of our two groups is our actual difference of means of 6.07 +/- 1.974. With this, we can say that statistically, there is only a 1.25% chance that the actual difference of means of these two groups is less than 4.1% (our difference of means 6.07 – 1.974), or a 1.25% chance that the actual difference of means is higher than 8.67% (our difference of means 6.07 + 1.974). This is a strong indication that the random differences between the highest 50% of schools reporting ITBS comprehension scores and SES rate and the lowest 50% of schools reporting ITBS comprehension scores and SES rate being less than 4.1% points or greater than 8.67% points is only 2.5%, an extremely confident calculated statistic (Kahn, 2011).

As well as establishing a strong corollary relationship with a high degree of confidence, we must attempt to prove the null hypothesis. The null hypothesis assumes that free and reduced lunch rate (SES rate) does not impact fourth-grade ITBS reading comprehension scores in Iowa. In plain language, this would indicate that the difference of the means would be 0. Using the data from Table 3, we know that we are 97.5% confident that the range of the difference of the means is between 4.1% points to 8.67% points. We are 97.5% confident that the difference of means of our two populations is at least 4.1% points. Zero lies below, and in fact is substantially below, this 4.1% number, meaning that we can reject the null hypothesis as not plausible (Lane, n.d.-a) (Lane, n.d.-b). With the corollary relationship set and the null hypothesis rejected, two schools, School A and School B, were selected. School A had an average free and reduced rate for the years of this study of 30.5% and an average proficiency rate of 86.3%. School B

had an average free and reduced rate for the years of this study of 29.2% and an average proficiency rate of 88.5%. The typical school with an approximate free and reduced rate of 30% would expect to be 81% proficient.

Narrative Analysis of Research Questions 2, 3, and 4

During the Spring and Summer of 2014, the researcher conducted a site visit to both Schools A and B. While in the communities and at the schools, the researcher generally explored the community and school from a visitor's perspective. What would someone not from either community think upon first appearance? The researcher visited ten classrooms for observations of approximately 60 minutes each. The main purpose of the observations was to closely observe the classroom, the activities within the classroom, the interaction among students and adults, and to script some portions of the activities taking place. Although the researcher was for the most part an observer, clarifying or probing questions were allowed during the hour.

Additionally, the researcher conducted 12 interviews with teachers and principals from both Schools A and B. The teachers interviewed were not those observed but generally a teacher from the same grade level as an observed teacher. The principals of both buildings were also interviewed. Interviews were conducted primarily on site, but those where that was impossible were completed by phone. The researcher used a digital voice recorder to record each interview, both live and over the phone. After the completion of each interview, the recordings were emailed to a transcription service for transcription. Each text file was then returned to the researcher. The researcher used the notes taken during the interviews and site visits, cross-referenced with the recording

transcriptions, to support and verify the information contained in the following information for the case study.

School A

School A, with a student population of 811 students, 92% of whom are Caucasian, is located in a small community of 2,444 people 1 hour and 10 minutes from a major metropolitan area and 30 minutes from a larger community of approximately 6,200 people. Interestingly, Community A would appear much larger than its size if just passing through. It sits along a two-lane state highway that is developed with businesses as well as a well-developed town square, "downtown."

Community A is well maintained like Community B, with a mix of houses both old and new. The development of sections of town appears to have taken place in the 1970s and 1980s, with small developments that would be from the late 1990s through today. This is very similar to Community B. Homes are, by and large, well maintained as is the town, community, and school. The business sections of town are well developed with a number of businesses—it would appear strictly from a business standpoint to be larger than its actual population. The more developed business presence in Community A would be due in large part to the distance from services in larger communities.

The school grounds and buildings are well kept, but vintage. There are no new school buildings in the school complex. Upon arrival at the small elementary, all entering the building were greeted by building staff. The entryway to the building gives way to a building built in the 60's, but well kept, bright, and welcoming, much like School B. The school characteristics and demographics are very similar as well as the

community characteristics and demographics. The only notable difference, besides area of the state, is the more developed business community in Community A.

School B

School B, with a student population of 743 students, 92.3 % of whom are Caucasian, resides in a small community of 1,687 people 35 minutes from a major metropolitan area and 10 minutes from a larger community of approximately 4,000 people. Community B is a quintessential small town in Iowa. It has the requisite grain bins, Casey's Convenience Stores, a small downtown, and a small school complex that is really the heart of the community.

The community has a mix of houses both old and new. Sections of town appear to have been developed in the 1970s and 1980s, with small developments that would be from the late 1990s through today. Homes are, by and large, well maintained, as is the town, community, and school. The main street of the community has a handful of businesses, smaller than some communities of similar size in Iowa due to their close proximity to a larger community of 4,000 people 10 minutes away and a major metropolitan area 35 minutes away.

The school grounds and buildings are well kept, but vintage. There are no new school buildings in the school complex. Upon arrival at the small elementary, all entering were greeted by building staff. The entryway to the building gives way to a building built in the 1960s, but well kept, bright, and welcoming.

Teacher Interview, Observation, and Survey Data

Having explored the communities both on and off site to get a "feel" for each, the researcher conducted site visits, interviews, and analyzed survey result to determine if evidence exists that would suggest that both School A and School B share traits, philosophical programs, actions and beliefs that could help to begin to explain both schools' over-achievement over time. Certainly, there are differences between the schools, the communities, and the staffs of both districts, but the districts share many things in common. Research Questions 2, 3, and 4 explore whether there are enough pointed and clear similarities that on the ground research and literature would suggest could make a positive difference in student reading scores. The analysis of the totality of evidence collected points to seven shared traits between schools A and B that help explain the positive test scores of their students.

Research Questions 2, 3, and 4

Question 2: What traits, programs, actions, and beliefs do high-achieving schools and generally accepted best-practice reading instruction share?

Question 3: Do common traits, programs, actions, and beliefs exist between two schools such that both overachieve the expected trend line?

Queston 4: Can the common traits, programs, actions, and beliefs of two overachieving schools explain and account for their higher than expected fourth-grade reading test scores?

Research Questions 2, 3, and 4

Focus on Curriculum, Trait #1

Site visits, interviews, and survey results indicate that at both School A and School B there is a focus on curriculum. By this, it would appear that the staffs at both schools strive in every way to provide robust, differentiated, and multi-sourced curriculum materials. The strength of the curricular choices by both staffs indicate a desire to choose, and follow through on, selecting a number of curricular items for reading instruction. Allington (2002a) characterizes the choice of curricular materials in *Reading Rockets* as searching for an:

> expansive supply of texts that supported children's learning across the school day (multi-level texts available for social studies and science as well as for reading classes). Organizations that knew that "one-size-fits-all" mandates contradicted virtually everything we have learned about effective teaching.

Beyond just texts, though, both schools augment a universal or common curricular text or series. Two teachers from School B and the principal from School A illuminate this in interviews:

> We are just pulling in everything. We are pulling in extra phonics. We are pulling in extra skill work as far as like right now we are doing cause and effect (School B, T1).

> We're a staff that if this isn't working, what can we do to add to it to make it so that we need to ... You're looking at your Iowa Core, you're seeing what the kids need, what can we do to get that need met? Teachers are finding out that they can tweak it and do different things with it (School B, T5).

> We have a reading curriculum. It's sort of going on third year. It's pretty much laid out, laid with the Iowa Core. It's a little, a lot of nonfiction stories which are great, so it's ... We have the series ... I do find that I don't care for the work book as much, so I supply a lot of other stuff in between (School A, T3).

> They're kind of figuring out how to use that, but even as we've gone through that, we've found that there's major holes in that resource and that we're going to try and plug up this year even with sight word lists and how they teach phonics in *Reading Wonders*. I think that stuff happened naturally for these guys. I think when they get a resource and they see something, they just naturally say, "This is not doing the trick," and they do something else. I've had teachers that pull out their old resources, and that doesn't bother me at all because it's a resource, it's not a curriculum. If we focus our attention on the aisle for being the curriculum, it doesn't matter what resource book they're using (School A, principal).

It is clear from the staff statements above that the schools' and teachers' philosophy is to use whatever resources are necessary to reach every child. That would indicate the use of a core set of materials, but a broadening of these materials with a number of different texts and curricular pieces. Survey results and classroom observations would clearly support this as well. In every classroom observation, five at School B and five at School A, the teacher used a number of different resources in the time the researcher observed reading instruction. For example, in the first 20 minutes of observation in a second grade classroom at School B, the teacher used three different pieces of text: a poem from the reading text, a recitation of a poem from another source, and two paragraphs about a tornado from a source other than the text. All of these sources were used to discuss cause and effect.

Table 4 provides results for Question 4 of the teacher survey, which said, "When you have reading instruction and/or do reading activities with the students, how often do you use the following resources? Answer for each line." The respondents could answer *every day or almost every day*, *once or twice a week*, *once or twice a month*, or *never or almost never*. The results show responses for the first three options:

Table 4

Question 4 Teacher Survey

Curricular Piece or Tool	Teacher Affirmative Response	Percentage
Textbooks	13/20	65
Workbooks or worksheets	19/20	95
Children's newspapers and/or magazines	12/19	63
Computer software for reading instruction	14/19	74
Reading material on the internet (web pages)	16/20	80
A variety of children's books (i.e. novels, collections of stories, nonfiction)	18/20	90
Materials from other subjects	16/20	80
Materials written by students	8/19	42

It is evident that of the eight types of curricula listed, seven were used by respondents at least once or twice a month by a majority of teachers with regard to all pieces of materials. The lone exception is the use of materials written by students. Further, four of the eight are used by at least 80% of the respondents at least once or twice a month. Interviews, survey responses, and classroom observations all support and illustrate that the teachers in both schools go to extraordinary lengths to provide a curriculum from a variety of resources in an effort to strengthen the prescribed text or reader.

Research Questions 2, 3, and 4

High Expectations and a Devotion to Students, Trait #2

Teacher expectations and hard work make a difference with student test results. The Center for Public Education (2005) indicated that two of the ten traits they found in high-achieving schools of poverty were a culture of high expectations coupled with a hard-working and committed teaching staff. This link was found after researching over 4,500 individual school buildings who had at least 50% of their student population free and reduced while scoring in the top one-third of schools within their state. Although neither Iowa school's free and reduced lunch rate hit the 50% level, a link between high expectations and student achievement is apparent in this study. Likewise, Ken Williams (2015), noted educational lecturer, would say that schools and teachers must "establish the bar," and once that is done, there must be a tenacity by both school and individual teacher to take each student "to and through the bar" (slide 20). Students and humans tend to achieve that which is set before them. These themes are clearly seen in both Schools A and B. Four teachers and the principal of School B and a teacher and the principal of School A each indicated the importance of high expectations and dedication/hard work:

> Problem solving is very high, the bar has been raised very, very high for us (School B, T1).

> The level of the work is extremely high for our kids, and we've really had to really pull in. I think Mary and I together have a lot of extra support for the program. The bar is high (School B, T1).

> Of course, the first thing I want to say is our teachers [sic] For sure, we work very hard. I think our teachers are very diligent about keeping kids engaged and also working on higher-level types of thinking. I guess we have high expectations for

all kids, that when you're here, you are capable. You're able to do it. We just view everybody as a learner (School B, T3).

I think we are very prideful. I think we are very proud of all the work that we put into our kids. I think we're very dedicated to doing what's best for kids and we're going to make that happen. You know, if there's hard changes, uncomfortable times, there's definitely uncomfortable times when there's change, but change is good sometimes. It's hard for people to do that (School B, T4).

With my kids I've been setting goals. We do a 3-week goal and so I say, "Okay, well, you can do it to where if you want maybe two data points." I really teach them to look at their graph and say, "Okay, what's a realistic goal for me to shoot for?" I might say, "Okay well, try ..." I might give them a suggestion, but we try and shoot for two data points above a certain goal (School B, T4).

Our expectations have really been bumped up for our kids academically. I think we're getting that more and more understood by parents now, the rigor that's involved and what is involved anymore in education (School B, T5).

I would say teacher quality is the biggest thing, even Hattie's research, Marzano, et cetera, the strength of the people in the classroom. They are very good at their craft. They're really professional about meeting what needs that kids have and they build great rapport with their students. They're engaging while still having extremely high expectations (School B, principal)

I just think we have good people and good students, which every district has, but I think you mix that with hard work, you mix that with can-do attitude. Nobody's a victim here, I guess that’s maybe a difference. Nobody wants to blame things. They tend to just, "Well, it is what it is and let's do the best we can (School B, principal).

We have a very good group of teachers. I think they all care about their kids. I'm not saying other schools don't, but I think you put in that extra when you're really trying to get them moved forward (School A, T1).

Here's the resources you can use. Here's the data and what it says. Now, you guys make it happen." That's kind of the attitude that they've taken for the last ten years, that they kind of did whatever it took to improve their data or whatever it took. I think there is a lot of power in that (School A, principal).

The quotes and discussion from both schools clearly show that staff expect students to learn to read. They have high expectations for themselves and students and

they work with students to set and have expectations of learning. Clearly they are committed to doing whatever is necessary to improve students' reading skills.

Research Questions 2, 3, and 4

Collect, Embrace, and Use Data Trait, #3

A Michigan online magazine, *The Bridge,* annually rates the best and worst schools in their state. Deputy Superintendent Patricia Telstad of Okemos Public School, one of the five highest ranking schools in 2013, attributed much of its success to "the district's obsessive use of data. We do a lot of data meetings with teachers. The teachers have gotten so good at looking at student achievement data, taking it down to the student level, and giving individual attention to students" (French, 2014, para. 33).

A study of 35 New York City schools similarly found that the one key difference between achieving and non-achieving schools was "teachers monitor[ing] student proficiency with well-designed assessments; and us[ing] the data to adjust tutoring groups, assign remediation, modify instruction, and develop individualized student goals" (Tapogna, Dyke, & Ward, 2012, para. 14).

This same attention to data can be seen in both School A and School B. Every interviewed subject, teacher or principal, discussed data in their interviews. Throughout the interviews, staff discussed the use of the following to collect data: MAP, FAST, DIBELS, Iowa Assessment, and formative assessments. The most common themes from the extensive answers that mentioned data were (1) collecting data from a number of sources; (2) setting time aside to analyze and use data (3) using data once collected; (4)

making individual educational decisions based on specific, individual student data; (5) and teachers discussing data:

(1) collecting data from a number of sources.

The following quotes from a teacher from school B and the principal from school B illustrate the use of multiple data points:

> We've been able to, at an early age, identify the kids that truly were at risk. Didn't matter what they did on the Iowa Basic Skills and all of that. We've always looked at multiple data, so it's not just looking at one thing. We've always respected teacher input (School B, T2).

> Typically, in the past here, the teachers would look at the data. What they would do with that data from DIBELS and even FAST this year is what teachers would do is they would set up intervention groups (School B, principal)

(2) setting time aside to analyze and use data

The principal from school B emphasized that the entire building uses data days to allow staff time to work with the data collected:

> We do hold data days. We also have a kind of an intervention packet that the teachers go through, but we really follow that MTSS model. We even look at the data: Are we meeting at least 80%, and where our numbers fall now, because if we're higher than that, we look at what's maybe going on in the classroom that could be causing that, but generally those things are pretty solid and consistent (School B, principal).

(3) using data once collected

Collected data is useless unless used by teachers to make informed decisions.

Three teachers, two at school B and one at school A, emphasized the use of data by teachers to improve instruction:

> What happens is. . . if they identify something, they try their own interventions in the classroom. If those interventions aren’t working, they’re keeping data to

support what they've done and what might need additional help. We're always looking at data, like the FAST data for Early Literacy Implementation, seeing where those kids are falling and what they need. We MAP test. We also had Iowa Assessments from second grade on up that we can use additionally besides other formative assessments to just see where kids are falling. Then, if those types of assessments aren't working with the Title support, then we look at special ed services and get a lot of additional help from our AEA consultants here (School B, T1).

I think at [school B] that we are very good at looking at the data. You hear about, oh, collect the data. Collect the data. We collect it, but then we actually do something with it (School B, T4).

(4) making individual educational decisions based on specific, individual student data

An emphasis in both schools is made to use data to help each child. The teachers strive to shape the educational experience of each student by closely examining collected data and then differentiating work and experiences for students. A teacher from both schools A and B discuss this individualized data:

Yeah. . . we take, the MAPs. Of course we take fast testing, and then we use our MAPs [sic] data to create our groups. I basically use that information to establish my groups, but we believe that they're flexible so kids can move at any time. I basically use that information to help me out when I'm planning my groups (School B, T3).

I think one of the things, we started doing universal screening a long time ago. We started with DIBELS. We were able to identify kids. We did that a long time ago that nobody else was doing universal screening. Probably, twelve years ago? Fifteen years? (School A, T1).

We look at the kids' scores and we say okay, is this child in an intervention? Is that intervention working for the child? If it's not, then we need to make a change (School B, T4).

(5) teachers discussing data

There is a sense of collegiality at each school. The staff works well together and often meet to discuss students and student data both formally and informally. Teacher 5 at school B talks about when and how teachers talk about data. “Now when we have grade level meetings, it usually is around the data. It's usually we have them after we've FAST Tested; we have data days. The ones that stick in my mind most are those data days after we have done our testing.” Teacher 4 at school B discussed the moving and sharing of students between teachers. This movement of students and sharing of students is evidence of deep conversations around data.

> We look at the kids' scores and we say okay, is this child in an intervention? Is that intervention working for the child? If it's not, then we need to make a change. For example, Mrs. X had a kid in her room that was doing fluency, but he showed up again that he had not made benchmark in the winter so we moved him to my room and now I have some of her kids that I am progress monitoring. Just a change of face sometimes will help. I think that we're really good at looking at our data and really looking and seeing what are the kids telling us. We make changes very timely.

Both schools collect, embrace and use data. It manifests itself in a number of ways, but the collection of data from a number of sources, the setting time aside to analyze and use data, the use of data once collected, teachers making individual educational decisions based on specific, individual student data, and teachers discussing data were themes throughout each school.

Survey data from teaching staff at both schools would also verify this same dedication to data. Question 12 of the teacher survey asks, “How often do you use each of the following to assess students’ performance in reading?” The respondents could

answer at least once a week, once or twice a month, once or twice a year, or never or almost never. The results show responses for the first two options, what would be considered an affirmative response. On all eight data collection methods, positive responses were at or above 55%, with seven of eight responses showing a positive response rate at or above 85%. (See Table 5.)

Table 5

Question 12 Teacher Survey

Type of Data Collected	Teacher Affirmative Response	Percentage
Multiple-choice questions on material read	17/20	85%
Short-answer written questions on material read	17/19	89%
Paragraph-length written responses about what students have read	11/20	55%
Listening to students read aloud	19/20	95%
Oral questioning of students	20/2	100%
Meeting with students to discuss what they have been reading	17/20	85%

Research Questions 2, 3, and 4

Differentiation of Instruction and Student Work, Trait #4

Universal agreement on any issue or matter is rare. The differentiation of student work and activity in the area of reading instruction might be one of the few universal truths—those things achieving almost universal agreement. Reis, McCoach, Little, Muller, and Kaniskans stated, “Differentiation is widely acknowledged to be an

important instructional approach for all children" (Reis et al., 2010). In a research study, Reis, et al. conducted an investigation "examining how a reading comprehension program involving differentiated instruction and a focus on engagement in reading influenced children's reading comprehension" (p. 492). Their work showed that the use of both differentiated instruction and enrichment teaching methods resulted in higher reading fluency and comprehension in some students. Teachers were able to replace whole and small group instruction with differentiated instruction without detriment to achievement scores.

This same feeling is prevalent at both schools. Gumm and Turner (n.d.) would call the teaching at both schools "dense." In a presentation prepared for the Florida Reading Research Center, they maintained "the most effective teachers are those that deliver reading instruction with density. Density addresses instructional delivery [when] it differentiates across the classroom" (p. 6). Differentiation is ubiquitous at both schools. Staff at both schools realize this and brought it up repeatedly when interviewed. In looking at quotes below, one teacher from school A and the Principal and three teachers from school B discuss differentiating instruction by using small groups and tailored work as dictated by each individual students skills:

> Like I said, this year we did the ability group. We had a high, middle, and a low. All the low kids with the majority were the ones that either had an IP [sic] for reading or they were like bubble kids, lower kids. About an hour is true, all reading, our separating time. I have had kids go to special ed classes or Title 1 classroom and get their one-on-one in interventions with them with those two people. They were groups of three or four maybe five. Then I would keep a group that's probably the higher of them in the lower group and do intervention with them (School A, T4).

> What's really cool about the format is it follows a 3-week framework and has a guiding ... it might be sequence, it might be characters, and so on. The first week tends to focus on reading skills. The second week has a different focus, usually word work, vocabulary, and/or comprehension strategies. The third week they have a reader's theater, and they practice that and then they perform it in various other classrooms. It typically just follows that framework. Teachers use the Daily Five rotations in their class throughout those 3-week period [sic] to meet with different groups, different abilities, and break down those skills (School B, principal).

> It just depends on my level of kids. I have one group where they're actually my kids with IEPs. I have four of them with reading goals, so they're by themselves with me to get the extra instruction and more of the support. Then I have my high group. I'm actually probably going to add a couple more. We just took our MAP test, so I'm probably going to have a couple more and have a group with eight (School B, T2).

> We do whole group for the first 20 minutes, and then we break into our skills groups. We've got those leveled out after their testing, and we have a Title. Our Title One teacher comes in, and she works with one of our lower groups for 20 minutes or so, and then they are getting core reading. They are getting small group exposure with me and also getting 20 minutes from our reading plus. They are getting plus-plus with that, and then the other kids rotate through different stations. We'll have a word work station. The kids can take their skills and use that in a read-to-self-type situation. We do listening. Every skill is covered every day in that, in just a small group setting. That's been really good (School B, T1).

> Every child had a reading [group]; we called it reading plus groups because we had several different people call it different things so we finally gave it one cohesive name. Every child, no matter what ability level, like second grade, would have a comprehension group. We'd have a fluency group. We'd have a decoding group. Then we have an enrichment group (School B, T5).

In order to differentiate instruction, a sense of a students reading and skill level is imperative. Teachers in both buildings use data to identify students' skills in reading, both the skills that they have and those skills that need improvement. Teachers from both Schools A and B discuss identifying student skills to better differentiate and target instruction. Identifying student skills is discussed below:

> I really do believe that we're really good at identifying. I really feel that that is something that we're ... And we're flexible. I think that you have to be flexible and not say, "These are our four kids and we're not going to move them out. I think it's nice; we all call it WIN time; What I Need Now." Everybody has a WIN time, so it's not a big deal (School A, T2).

> How do you reach out to them? Today we did a read-to-self-comprehension, story questions. Just where their Lexile range is. We'll pull stories that are within their Lexile that they are capable of reading to do that. They are all different stories, the different groups. That's how we'll reach out, and word work might be a little more involved. They might be working on the same skill. One might not be so involved as another one (School B, T1).

> Within our small groups we kind of look at their Lexile levels. I really use their MAP tests, their MAP testing for that, and I'll kind of put them into a leveled text that's appropriate for them. Then they also do their chapter books. I also make sure that they have a book within their Lexile range (School B, T4).

Two teacher interview questions discussed a diversity of teaching materials and instructional strategies. This is another way staff at both schools differentiate instruction and provide the "dense" instruction outline by Gumm and Turner. Teachers at each school use a variety of materials and strategies. In teacher interview Question 6, teachers were asked, "Which of these best describes how you use reading instructional materials for students at different reading levels? Pick only one answer." The available choices were:

1. I use the same materials with all students because all students are at the same reading level.

2. I use the same materials with students at different reading levels, but have the students work at different speeds.

3. I use the same materials with all students regardless of reading level and have students work at the same speed.

4. I use different materials with students at different reading levels.

An answer of 2 or 4 would indicate differentiation. Twenty out of twenty, or 100%, of combined teachers in both schools answered either 2 or 4, indicating some level of differentiation in the reading instruction with all students and all teachers.

In teacher interview Question 7, teachers were asked, "When you have reading instruction and/or do reading activities with students, how often do you do the following? The available choices were every day or almost every day, once or twice a week, once or twice a month, or never or almost never. An affirmative response would constitute any of the first three options. In Table 6, all ten of the strategies or activities listed were answered affirmatively by at least 80% of the teacher respondents. This indicates that the teachers at both Schools B and A were using a variety of strategies and activities to work with and engage students. This would also be an indication of an attempt to differentiate learning. A variety of strategies, activities, and approaches must be used to individualize and personalize learning. The survey questions responses, observations and interviews show a deeply embedded practice of differentiation within classrooms. See Table 6.

Table 6

Reading Strategies Used

Reading Instructional Strategy	Teacher Affirmative Response	Percentage
Reading aloud to the class	20/20	100%
Ask students to read aloud to the whole class	16/20	80%
Ask students to read aloud in small groups or pairs	20/20	100%
Ask students to read silently on their own	20/20	100%
Ask students to read along silently while other students read aloud	20/20	100%
Give students time to read books of their own choosing	18/20	90%
Teach or model for students different strategies (for example skimming/scanning, self-monitoring)	20/20	100%
Teach students strategies for decoding sounds and words	19/20	95%
Teach students new vocabulary systemically	20/20	100%
Help students understand new vocabulary in tests they are reading	19/20	95%

Research Questions 2, 3, and 4

Parental Involvement in School, Trait #5

Dervarics and O'Brien's 2011 quote below, posted on the Center for Public Education website, may strike at the heart of the way our nation feels about parental involvement in school:

> It may be one of the least controversial statements in American education: Parent involvement can make a difference in a child's education. Two-thirds of teachers surveyed (Public Agenda, 2003) believed that their students would perform better in school if their parents were more involved in their child's education, while 72% of parents say children of uninvolved parents sometimes "fall through the cracks" in schools. (Devarics & O'Brien, 2011)

Dervarics and O'Brien brought to the surface the feelings or anecdotal perceptions around parental involvement, but the issue does go beyond perception. Studies indicate that a parent's involvement in a child's school and schooling positively impacts student results and experiences. The two authors continued to explore beyond perception. Their research showed that 51 studies over a decade reached conclusions about the effect of parent involvement on student learning. While few of the studies were experimental or quasi-experimental in design, and many were correlational or case studies, when synthesized, the report had positive findings. For example, SEDL found that students with involved parents, no matter their income or background, are more likely to:

- Attend school regularly
- Earn higher grades and test scores and enroll in higher-level programs
- Be promoted, pass their classes, and earn credits
- Have better social skills, show improved behavior, and adapt well to school

- Graduate and go on to postsecondary education

Although all of the above are important, for the purpose of this study it is important to note that parental involvement tends to assist students in "earning higher test scores." Teacher interviews at both School B and School A would support this line of thinking as well. Four teachers from School B and one teacher from School A directly indicated that the parental support for teachers and the school was strong. Both teachers 1 and 4 at School B indicated that any time they would ask for help, parents would accommodate that request. The quotes below illustrate parental support at both schools:

> For a small community. . . It's nice where you walk down the street, and you know everyone. If I ask for help, then I'm probably going to get it in our classroom (School B, T1).

> I think my parents are very supportive. If I ask for help, I do a lot with Class Dojo. I don't know if you've heard about that, but it's super easy to do home communications. If I have any problems or issues, I just shoot them a message, and they're very responsive as far as getting any questions back or anything like that. I'd say we're pretty well supported by parents. I'd say pretty well. Like I said too, I think that also has to do with the fact that it's a small community and everyone kind of knows each other. There's a lot of families within the district that everyone's kind of related. You just build that relation from the get-go, and then it seems to go pretty well with parents (School B, T4).

Three other teachers, two from School B and one from School A, indicated a generalized feeling of support. Teacher 5 from School B characterized it by saying, "Overall [School B] is very good... being a small town, we have a lot of parent support. You have your variance of it, but overall very good" (School B, T5). The other two expressed a willingness on the students' part to learn and an ability to know parents because of the small setting and small town atmosphere:

> We have a great community of staff members and parent involvement too. We do have a lot of parents that are involved in the classroom, so our kids are really

> willing to learn and do well for us. They come in and they are wanting to do well, especially in elementary, as far as I know (School B, T2).
>
> I would say it's a very close-knit community and close-knit school. We all get along really, really well. It's like a second family. I think it's nice because we know a lot of the kid's family, as well. Going in the beginning of the year we know the kids and their families. It's kind of I feel easier to get to know them and sothat they're more comfortable (School A, T4).

A common theme, fleshed out with the above quotes, points to the belief by the professional staffs at both schools B and A that parental support is strong. They feel that parents, almost universally, are ready to help in their child's education when asked. They feel that they, as professionals, are trusted by parents and are apt to get help from home when needed.

Research Questions 2, 3, and 4

Time Devoted to Literacy, Trait #6

Time devoted to literacy makes a difference, but how much time makes a meaningful difference? A growing number of resources, including Richard Allington, Eastern Regional Reading First Technical Assistance Center (ERRFTAC), and Reading Rockets agree that reading blocks of 90 minutes are crucial. Reading Rockets, a national literacy initiative offering information and resources on how young kids learn, states that:

> research shows that students need at least 90 minutes of uninterrupted reading instruction per day in order for sufficient student reading development, and that this instruction must be dense: systematically delivering explicit teacher directions; scaffolded over time; and differentiated across the classroom ("An Example," para. 1, 2013).

Allington's work supports this idea. In fact, he states, "when stuff dominates instructional time, warning flags should go up . . . there is a lot of stuff going on in less effective classrooms that is not supported by reliable evidence" (2002b, p. 742).

Allington would prefer an even larger reading block than 90 minutes. And finally, Gumm and Turner pointed out that:

> [a growing] body of converging evidence [and] research repeatedly points toward time**.** It shows that students need a minimum of 90 minutes of uninterrupted reading instruction per day in order for sufficient student reading development . . . to reading on grade level (n.d., p. 6).

Three teachers, two from School B and one from School A, extensively discussed the importance of time in the teaching of reading, much like Teacher 4 from School A, who stated that she spent "like two hours" (School A, T4) on reading. The quotes below indicate that all three discussed the extensive time spent on reading in their respective classrooms:

> We have 120 minutes or 2 and a half hours [sic]. We've got our core, and then we have our reading plus time, which is Title One [and then] reading, writing, that English language arts type of [stuff] (School B, T1).

> At 8:30 we do the whole group phonics. This week we're learning about suffixes. Then from 9:00 to 9:10 we have a read-a-loud, although I love to go a little bit further, because I love read-a-louds. Then from 9:00 to 9:30, that's our whole group. Then we go into our stations. So we have our group one, our group two. Then we have a break in between there. From 10:10 to 10:25, we have a break. Then we finish off with our last two stations, our last two groups. Then we're done for the morning. Then at 12:25 to 12:45, we have our read-to-self time. This is not all of our time, but shows some of what we did today (School B, T2).

> The amount of time we get to spend in the classroom reading. Close to three hours is spent learning about reading. We develop young readers who love to read. The majority of my kids could stand [sic] read all day if you really wanted them to. Sometimes you have to even force them to take the book, like, "No, put the book away" (School B, T2).

> Okay, we do a 90-minute block because the only thing we can do is we have to split it. It works good for the kids because it keeps them very focused. I do about a 40 minute, actually it's more than that really because we do 40 minutes of time in the morning where I'm teaching the main sounds, the main lesson part of it and then in the afternoon we have our Daily Five and WIN time. We have some kids that leave for WIN, which is What I Need, for reading. Actually we do that, we do

> our 90 minutes, but we're really getting more than 90 minutes. We're getting 90 plus minutes, plus about 35 to 40 minutes in the morning (School A, T3).

The teachers above indicated they worked with students anywhere from 90 minutes to 3 hours per day. This would be, at a minimum, in line with current research and best practice regarding literacy, keeping in mind that organizations like Reading Rockets recommend at least 90 minutes of literacy instruction per day. Schools A and B have invested time in the teaching of reading. They would agree with current best practice, as evidenced in observations and interviews with staff, that a district must invest time in the student's day for literacy instruction to be effective.

To complement this time spent on reading around core curriculum work, in the teacher survey, teachers were asked, "What do you usually do if a student begins to fall behind in reading?" Twenty of twenty teachers, or 100 % of those responding, said that they spend more time working on reading individually with that student. So not only are School A and School B devoted to a time commitment regarding reading instruction to the class, but they show significant efforts to add additional support in the way of time if a student begins to fall behind in reading.

Research Questions 2, 3, and 4

Experienced Teaching Staff/Staff Longevity, Trait #7

Experience plays a role in teaching, as it does for all careers. Common sense would indicate that over the course of time, all people who gain experience and experiences would become better at their craft rather than worse. Classic educational research indicates that teachers, in general, improve over their first handful of years in the

teaching profession (Meyer, 2009). Taking into account no other factors, experience does make a difference. However, recent research indicates that the improvement of instruction and student learning throughout an educator's career lasts beyond a handful of years, say three or four, and continues past a decade. Traditional thinking about teacher improvement over time is illustrated by Meyer:

> The notion that teachers improve over their first three or so years in the classroom and plateau thereafter is deeply ingrained in K–12 policy discussions, coming up in debate after debate about pay, professional development, and teacher seniority, among other topics. (para. 1)

But results from recently released studies and a more modern look at teacher improvement over time are questioning the length of time improvement continues. The above quote indicates that teachers improve for approximately three years, but Sawchuck indicates that some studies "suggest the average teacher's ability to boost student achievement increases for at least the first decade of his or her career—and likely longer" (2016, p. 1). Both the principals of School B and School A indicated that they felt that longevity and continuity in staffing was a factor in the district's respective test scores. Principal B responded with:

> We have a lot of experience. . . A lot of these teachers have been here for a long time. Many are at 2 decades. In some cases, we're at 3 decades of service to [School B]. I just think that that's been a big factor. We've got people that are staying and they're good at what they do.

Principal A indicated that "this building was veteran staffed, and it'll always be veteran staffed, and the leadership did not come from the principal, it came from within the different teams" when asked about factors that may help explain the district's test scores.

Building on this notion, Ladd and Sorenson (2015) [of Duke University] “using a value-added method similar to that of the Brown University scholars, . . . found that, on average, the students' teachers continued to improve their effectiveness in boosting academic outcomes for at least 12 years” as cited in *EdWeek* (Sawchuk, 2016, p. 10). When examining School B and A staff, survey data indicated that 15 of 20 teachers responding to Question 2, What is the total number of years you have been teaching? indicated that they had 11 or more years teaching experience in their career. In other words, 80% of the teaching staff responding to the survey have had a minimum of 11 years to improve their craft.

Additionally, when looking at teacher tenure at Schools B and A, data again would indicate that generally, both staffs are more veteran than the state average. Table 7 looks at data obtained from the Department of Education website under the data section. A random pull of four years of data, 2003–2004, 2005–2006, 2011–2012, and 2015–2016, within the range of the study indicates in Table 7 that in every year, with the exception of School B in the 2005–2006 school year, the average teaching experience in the participating districts exceeded the state average for teaching experience in other school districts. The experienced staffs at both schools place them in a percentile range from 43rd, the one anomaly from School B mentioned above, to the 97th percentile. Over the course of these five years, Schools B and A combined average in the 74th percentile when compared to Iowa school districts in the area of teaching experience. This indicates that their staffs are more experienced than 74% of the districts in Iowa. When looking at actual years’ teaching, Schools B and A average years of experience in

those 5 years is 2.3 years greater than the state average for the same time frame (Iowa Department of Education, 2016).

Table 7

Teacher Tenure Schools A and B

School Year	School	Percentile Rank District Ext	District P/W Avg Yrs Exp	State Avg Yrs Exp
2015/2016	School A	57th	14.7	13.5
	School B	74th	15.4	13.5
2011/2012	School A	66th	15.9	14.4
	School B	80th	17	14.4
2005/2006	School A	97th	19.8	15
	School B	43rd	14.7	15
2003/2004	School A	97th	19.4	15.2
	School B	79th	17.2	15.2
AVG		74th	16.8	14.5

Evidence suggests (Meyer, 2009; Sawchuck, 2015) that teachers improve their teaching as they gain experience. Recent studies are beginning to suggest, as Sawchuck indicated, that the length of this window of opportunity may last beyond a decade. In looking at specific data from Schools B and A, it is reasonable to include the length of service of both teaching staffs as a possible indicator in the district's overachievement.

Research Questions 2, 3, and 4

Teacher Collaboration, Trait #8

The “impact” or “effect” of teacher collaboration time is often argued, but more and more it has been shown to make a difference. Esther Quintero (2015) called this practice of collaboration social capital. She described it and its impact as “the idea that relationships have value, that social ties provide access to important resources like knowledge and support, and that a group's performance can often exceed that of the sum of its members” (n.p.). Teacher 1 at School B and Teacher 3 at School A both illustrate how this works in their classrooms and work:

> I think when we have kids that fall out, or are beginning to fall out, that's where teachers really work together as a team. We've got Mrs. XX, if I need that extra help, she's in there helping me. She's pulling kids. She'll come in and give me that support. I think if we were to try and be a one-person team, I think failure would be very easy. It's just not one person. My co-teacher, both first grade classrooms, we bounce ideas off of each other. This really works for you but this really bummed for me type thing, and help each other out. I know we do that a lot (School B, T1).

> There's things we are trying with the kids, and there's just still struggling. . . and I don't know what to do. What am I going to do to get this little kiddo up to where they need to be, and she'll say, "I've done this. Try this." I think that really helps us a lot. We are not ... I don't think there's any teacher that's really competitive, trained to be up on one another. Where you really work as a team. I can honestly say that I think it's that way across the board (School B, T1).

> I think we have a very veteran staff, like I said before, and I think that our communication with parents is so strong that that helps a lot. I think also that from grade level to grade level, we are always talking. We are communicating. I know I've had teachers ask me, "What'd you do with this little person last year, because they're struggling here?" I think it comes back to that. I think it comes back to a veteran staff, line of communication. We are always talking and listening for what we could do to help this person. I guess we pass on little tidbits of information from year to year about kids. . . We talk to each other (School A, T3).

Quintero (2015) went on to interject the idea of constancy into the social capital discussion. In other words, what would happen if this teaming or working together, what she would call building social capital, is routine and systemic? She indicated that:

> a number of studies suggest that good things happen for students in schools where teachers work together routinely. Students learn more when their teachers are embedded in more supportive and collegial professional networks, and that teacher collaboration may have as great an effect on student achievement as teacher human capital (n.p.).

Teacher 3 at School B discussed her work in professional learning communities:

> Okay, we typically, during our PLC time on Mondays, we will get together and that's, my group is comprised of the other third grade teacher and then our Title teacher. What we do is, we just sit down and we look at the child's data. We try to kind of look at, are there any ... Why would this be changing? What have we tried? At that time, we just have conversations of, I get to say what I've tried within my classroom to help that child.

Teacher 3 at school B would suggest that the routine of working with her PLC—they do this weekly most weeks throughout the year—is a large part of what allows her to reach each child. Evidence of teachers working together using data is prevalent and embraced at both schools A and B.

CHAPTER 5

SUMMARY, CONCLUSIONS, REFLECTIONS, AND RECOMMENDATIONS FOR FUTURE STUDY

Summary

The purpose of the study was to provide findings to Iowa schools, boards of education, building leaders, and teachers as well as the general public regarding the corollary relationship between the SES rate of a school and its achievement in reading comprehension tests. It is further intended to inform the same educational groups regarding traits, practices, and beliefs that schools with higher rates of identified students on free and reduced lunch may explore to increase student reading comprehension skills.

Conclusions and Reflections

1. A strong, statistically significant corollary relationship exists bewteen the fourth-grade reading comprehension scores on the Iowa Tests of Basic Skills and the free and reduced lunch rate of schools in Iowa.
    a. Data analysis of the fourth-grade reading comprehension scores on the Iowa Tests of Basic Skills and the free and reduced lunch rate of every school in Iowa for a 10-year period shows that a strong negative corollary relationship exists between the two variables. Using a corollary formula, a -.561 relationship exists between these two. A perfect corollary relationship is either 1 or -1. Any finding either higher than .5 or lower than –.5 indicates a strong relationship (Explorable.com, 2009).

b. Further, the difference between the proficiency means of the higher achieving 50% of schools and the lower achieving 50% of schools in this study is 6.07%. Additionally, we are 97.5% confident with this set of data that the difference in means of those schools comprising the highest 50% of schools in Iowa and the 50% of schools comprising the lowest 50% of schools in Iowa is between 4.1% and 8.67%. This indicates that there is only a 2.5% chance that the true difference of means lies outside this range. This is a strong indication that the difference of means of 6.07% is not random and is therefore a true difference in means (Kahn, 2011).

2. The corollary relationship beween the fourth-grade reading comprehension scores on the Iowa Tests of Basic Skills and the free and reduced lunch rate of schools in Iowa is not absolute—it can be overcome. One need only look at Figure 6 below to see that there are certainly many schools that over and underachieve the expected corollary line. Schools A and B, with free and reduced rates of 30.5% and 29.7% respectively, have averaged 86.3% proficient and 87.04% proficient over a 10-year period. Using the corollary line, one would expect the proficiency rate for both schools to be approximately 80% to 81%. This difference for both schools is shown to be statistically significant. It is highly unlikely that their overachievemnt over a 10-year period is chance. This would indicate that although a strong corollary relationship exists between these two variables, that schools do overachieve given their free and reduced lunch rate.

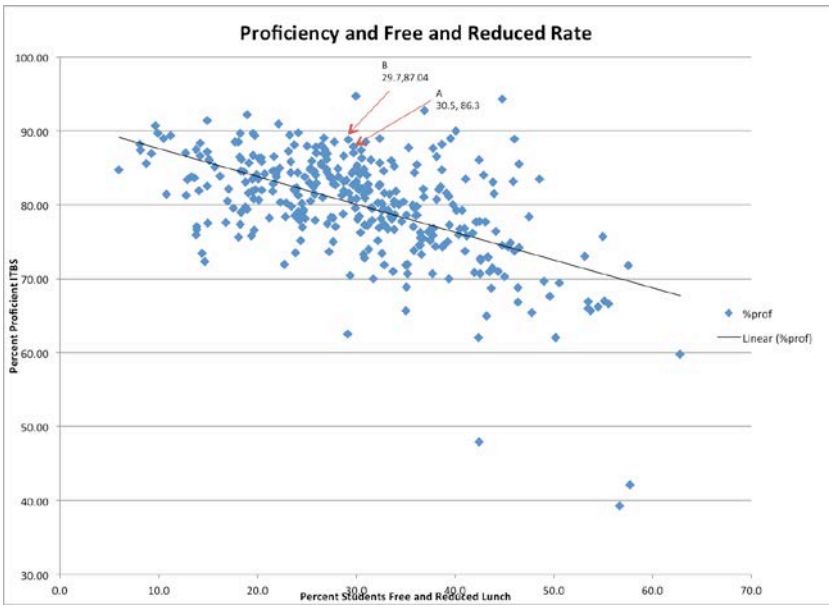

Figure 6 Iowa School ITBS Achievement and SES Rate

3. Common traits, programs, actions, and beliefs of overachieving schools can explain and account for higher than expected fourth-grade reading test scores. These eight findings, a focus on curriculum, high expectations and devotion to students, an embracing of data, data-driven differentiated work, parental involvement, staff longevity, a devotion of instructional time to literacy, and teachers working together, which both Schools A and B have in common, lead to increased reading comprehension test scores.

    a. A focus on curriculum:

        In these two overachieving schools, curriculum is important and matters to the teachers. Most prominently, although each school has a seminal text or set of curricula, teachers at both Schools A and B routinely supplement this with a number of different materials and activities. They are constantly searching for

material or pedagogical practices that can best reach students and improve student reading skills.

b. High expectations of students:

Teachers at both Schools A and B expect each and every student to learn. They do not make excuses or accept them. They have forged an atmosphere and community that indicates that every student who walks through the front doors of the school will learn to read. Regardless of where a student begins, the expectation is that they will improve. All humans, students included, tend to reach expectations and work as hard as is expected. The teachers in both schools bring out the best in students partly because of high expectations.

c. They embrace and use data:

Every teacher interviewed, observed, and surveyed indicated that they rely on multiple data points, collected in a variety of ways, on a regular and frequent basis. This is absolutely uniform when looking at the data. Every teacher does this and appears to value it.

d. Data drives differentiation of instruction and student work:

The frequent collection and use of data drives differentiated instruction for each individual student. This appears to be the primary purpose for the tenacity with which both teaching staffs collect data. Teachers have a great desire to meet students where they are at and further them in the area of literacy. They fully believe that this can be achieved only through data collection and differentiation.

e. Great parent involvement/relationships:

Both schools report very good parental involvement. Numerous times in interviews, teachers and administrators lauded the amount of parental involvement in their rooms, schools, or district. There was an expectation in both schools that parents, by and large, would support them as teachers and provide assistance when asked or help when needed. Many teachers referred to the relationship with families and the public like a familial one. It is clear that both schools value the parental support received.

f. Staff longevity:

Interviews and survey results indicate that staff at both schools feel as though they are veteran. That is true when looking at the actual tenure of the teaching staffs of both buildings compared to the average longevity of teachers at other schools in the state. In essence, both schools' teaching staffs have more experience than the average school in Iowa and in some years, substantially more. As teachers become more effective over time, it would make sense then that both schools' level of experience impacts the teaching and learning in their respective buildings in a positive way.

g. Devote time to literacy:

In both buildings, A and B, there was a clear commitment to time spent on literacy instruction. No teacher in this study spent less than 90 minutes, the recommended minimum, per day on reading, while some spent as much as 3 hours in the area of reading instruction. There is a commitment from both staffs to ensure that reading instruction is a priority, and they back up that commitment

by devoting large amounts of time in each student day to the pursuit of improving student reading skills.

h. Teachers working together to improve student reading skills:

A very collegial environment emerged at both schools over the course of this study. It is clear that the teachers at both Schools A and B value each other, work in a collaborative manner, take and give suggestions regarding students, and systematically use data together to make informed decisions regarding student reading achievement. There appeared to be little or no animosity or competitiveness among staff. They truly seemed devoted to students and focused on working together to help each student reach his or her potential.

Does a corollary relationhsip exist between acheivement and free and reduced lunch status? Absolutely, both nationally and in the ten years covered in this study in Iowa. Is it absolute? Absolutely not. The statistical analysis conducted here clearly shows that there are schools in Iowa that both overachieve and underachieve. The two schools contained in this case study statistically have overachieved the expected proficienty rate for their school for an extended period of time. Statistics would show that it is nearly impossible that this could be chance.

Do other outside sources help confirm this overachievement? Yes. The Iowa Department of Education awards a small number of schools each year Breaking Barrier Awards:

> The Breaking Barriers to Teaching and Learning Award was created by the State Board of Education. Each year, the award recognizes successful efforts to eliminate achievement gaps. This year's award-winners were recognized for having the highest proficiency rates statewide in math and reading among a

> specific subgroup of students, such as students whose first language is not English and students from low-income backgrounds. State assessment results from the last three years were examined to confirm a positive trend for each school (Iowa Department of Education, 2016).

School A received this award in 2016 for "its work with students who come from low-income families. 93 percent [of students from low income families] are proficient in reading and math. The statewide average is 68 percent" (2016). This acknowledgement from the state further indicates that school A is overachieving.

Did the case study and research uncover similarities that might illuminate the underlying reasons for this overachievement? Yes. When looking at the school observations, the interviews, and the survey results, eight factors appear in common at both schools that make the difference: a focus on curriculum, high expectations and devotion to students, an embracing of data, data-driven differentiated work, parental involvement, staff longevity, a devotion of instructional time to literacy, and teachers working together. These eight factors clearly contribute to both schools' overachievement.

Recomendations for Further Study

Because reading is a foundational skill that impacts a student beginning at age six, every other subject a student studies, a student's future educational choices, and a student's future life and career, it is worth serious and sustained study. The researcher found little research focused on the State of Iowa regarding this topic. Due to the importance of this research topic, recommendations for further study include:

1. Replicating this study using the most current Iowa standardized tests when a number of years' data has been compiled.

There exists a generalized corollary relationship between free and reduced lunch status and achievement on standardized test scores. The researcher in this case consciously determined that the ITBS reading comprehension scores would be used for the last ten years this test was given in Iowa simply because of the length of time the data was available. Additional work could reinforce this study's findings using the new TIER reading data the state began three years ago and the new state-wide literacy assessment when the Iowa Legislature determines the definite test. This research could affirm that the findings using ITBS scores can generalize to other standardized tests used in Iowa.

2. A replication of results from other small, rural Iowa schools and replication of other types of schools in Iowa.

   One should always use caution regarding transferability. Although this case study clearly outlined the traits, beliefs, and actions of two similar, small, rural school districts in Iowa, there is no certainty that these findings are applicable beyond these two schools. Other similar studies would be able to reaffirm this study's findings. A purposeful choice of schools unlike those in this case study, in future studies, could also lend credibility to a broader generalization of results beyond the two subject schools and small, rural schools in general.

3. An intra-district study of achievement with multiple elementary buildings and diverse proficiency levels.

   A study surrounding a larger district with multiple elementary schools could help identify with even more clarity what individual schools could do to

increase student reading proficiency. A researcher would assume that multiple schools within the same district would by their nature share some traits, beliefs, and actions. By conducting the research in a single district, one might even more closely pinpoint those actions that increase student reading achievement.

The findings from this research confirm the corollary relationship between socio-economic status and achievement on the reading comprehension scores on the Iowa Tests of Basic Skills. This should give pause to every Iowa educator teaching reading in Iowa. This is a contributing factor to achievement that is entirely out of the school's and teacher's control. Yet, the study also gives new insight into this relationship and how it can be overcome. Two Iowa schools, through hard work, determination, and the implementation of eight traits, programs, actions, and beliefs, have, over a period of time, produced student achievement results that continue to exceed the expected proficiency rate for their aggregate student body's socio-economic status. It is the researcher's hope that this research illuminates the fact that all students can learn and that schools, despite the presence of outside neagative contribuating factors, can help students achieve at high levels.

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APPENDIX A

SAMPLE LETTER OF COOPERATION FOR DISTRICTS

(letter of cooperation)

Date

John Speer
1219 Winchester Circle NE
Swisher, IA 52338

Dear Mr. Speer

Your study, “A Case Study Analyzing the Correlative Relationship Between Free and Reduced Lunch Rates and Standardized Test Scores ,” is approved and you are free to proceed.

We understand that participating in this research will include analyzing free and reduced lunch rate data and ITBS reading comprehension data. Further, we understand that part of the research process is the administering of an on-line survey, a face to face survey, and observations of teaching staff during the day. We also understand you will maintain confidentiality of all research participants in all phases of this project.

According to our agreement, project activities will be carried out as described in the research plan reviewed and approved by the University of Northern Iowa Institutional Review Board.

We look forward to working with you, and please consider this communication as our Letter of Cooperation. Best wishes for a productive, enlightening study!

Sincerely,

XXXXXX

APPENDIX B

SAMPLE INFORMED CONSENT FORM FOR INDIVIDUALS

Date

Dear XXXXXXX

My name is John Speer, and I am a doctoral candidate in the educational leadership program at University of Northern Iowa. I am presently engaged in conducting research for my doctoral dissertation which will study overachieving schools—schools that over time achieve beyond the expected outcome on 4th grade reading comprehension scores on the ITBS tests. The academic achievement of students is a high priority for all educators, and my study will broaden the research studying what factors may lead a school to improved or unexpected achievement results

I am aware of your very busy schedule, but in order to successfully conduct this valuable research I need your assistance. I would request that you participate in this research project conducted through the University of Northern Iowa. Your district is one of a select few in Iowa that has consistently achieved above the statistically expected outcome on the ITBS reading comprehension test. This study will use information from interviews and observations conducted with teachers and administrators who work at your elementary school to determine if there are particular factors that could account for your high performance.

When I have completed the study, the results will be disseminated through the University of Northern Iowa. The school district will receive the results of the study upon the acceptance of the dissertation with the Dissertation Committee and the University of Northern Iowa.

Thank you in advance for your invaluable help with this project. If you have any additional questions, please email me at jspeer@prairiepride.org or call my cell phone at 515-450-2775

Respectfully,

John Speer

Doctoral Student

University of Northern Iowa

APPENDIX C

TEACHER SURVEY QUESTIONS

1. I teach?
2. What is the total number of years you have been teaching?
3. What is the total number of years you have been teaching in this school district?
4. When you have reading instruction and/or do reading activities with students, how often do you use the following resources?
    a. Textbooks
    b. Reading series (i.e., basal readers, graded readers)
    c. Workbooks or worksheets
    d. Children's newspapers and/or magazines
    e. Computer software for reading instruction (i.e., CD, DVD)
    f. Reading material on the internet (web pages)
    g. A variety of children's books (i.e., novels, collections of stories, nonfiction)
    h. Materials from other subjects
    i. Materials written by students
5. When you have reading instruction and/or do reading activities with students, how often do you have the students read the following types of text? Answer for each line.
    a. Short stories (e.g., fables, fairy tales, action stories, science fiction, detective stories)

b. Longer books with chapters

c. Poems, plays

d. Descriptions and explanations about things, people, or events (nonfiction)

e. Instructions or manuals about how things work

f. Charts, diagrams, graphs

6. Which of these best describes how you use reading instructional materials for students at different reading levels? Pick only one answer.

    a. I use the same materials with all students because all students are at the same reading level

    b. I use the same materials with students at different reading levels, but I have the students work at different speeds

    c. I use the same materials with all students regardless of reading level and have students work at the same speed

    d. I use different materials with students at different reading levels

7. When you have reading instruction and/or do reading activities with the students, how often do you do the following? Answer for each.

    a. Read aloud to the class

    b. Ask students to read aloud to the whole class

    c. Ask students to read aloud in small groups or pairs

    d. Ask students to read silently on their own

    e. Ask students to read along silently while other students read aloud

    f. Give students time to read books of their own choosing

g. Teach or model for students different strategies (for example, skimming/scanning, self-monitoring)
h. Teach students strategies for decoding sounds and words
i. Teach students new vocabulary systemically
j. Help students understand new vocabulary in tests they are reading

8. After students have read something new, how often do you ask them to do the following? Answer for each.
    a. Answer reading comprehension questions in a workbook or on a work sheet about what they have read
    b. Write something about or in response to what they have read
    c. Answer oral questions about, or orally summarize, what they have read
    d. Talk with each other about what they have read
    e. Do a project about what they have read (e.g., a play or art project)
    f. Take a written quiz or test about what they have read
9. How often do you ask the students to do the following things to help develop reading comprehension skills or strategies? Answer for each line.
    a. Identify the main ideas of what they have read
    b. Explain or support their understanding of what they have read
    c. Compare what they have read with experiences they have had
    d. Compare what they have read with other things they have read
    e. Make predictions about what will happen next in the text they are reading
    f. Make generalizations and draw inferences based on what they have read

g. Describe the style or structure of the text they have read

10. Are the following resources available to you to deal with students who have difficulty with reading? Answer for each line.
    a. A reading specialist is available to work in my classroom with those students
    b. A reading specialist is available to work in a separate setting with those students
    c. A paraprofessional or other adult is available to work in my classroom with those students
    d. Other professionals (learning specialists, speech therapist, etc.) are available to work with those students
11. What do you usually do if a student begins to fall behind in reading? Answer for each line.
    a. I wait to see if performance improves with maturation
    b. I spend more time working on reading individually with that student
    c. I have other students work on reading with the student having difficulty
    d. I have the student work in the regular classroom with a paraprofessional
    e. I have the students work in the regular classroom with a reading specialist or other teacher
    f. I have the student work in a remedial reading classroom with a reading specialist or special education teacher
    g. I assign homework to help the student catch up
    h. I ask the parents to help the student with reading

12. How often do you use each of the following to assess students' performance in reading? Answer for each line.
    a. Multiple-choice questions on material read
    b. Short-answer written questions on material read
    c. Paragraph-length written responses about what students have read
    d. Listening to students read aloud
    e. Oral questioning of students
    f. Students give oral summary/report of what they have read
    g. Meeting with students to discuss what they have been reading and work they have done

APPENDIX D

TEACHER INTERVIEW QUESTIONS

1. Grade taught
2. Degrees/endorsements held
3. Years teaching
4. Years in district
5. Years in current position
6. Areas taught
7. Describe the school district for me
8. What is your average or typical student like?
9. How would you characterize parental support for your students?
10. Are you the only X grade teacher?
11. Describe your reading curriculum for me
12. If not the only teacher, do you coordinate curriculum/units taught?
13. How much time in a typical day do you spend on reading?
    a. How is it structured (a block, etc.)?
    b. Do you include writing in your reading instruction?
    c. Describe your reading instructional time
    d. Are there any extra adults in your room during reading instruction?
14. Do students get any other reading instruction during the day—other teacher, in other subjects

15. How do you address a classroom with students at multiple reading levels?
16. Describe your intervention process/structure/curriculum
17. Does your school utilize Title I, Reading Recovery?
18. What assessments do you use to measure growth and to progress monitor?
19. How do you use the above collected data?
20. How much freedom do you have in designing the reading curriculum, lessons?
21. What would you suggest leads to your reading comprehension score success?
22. How and why did you become a teacher?
23. If you had the power to change anything about education, what would you change?
24. What else would you like to tell me, or is there anything else I should know before I leave?

APPENDIX E

ADMINISTRATOR INTERVIEW QUESTIONS

1. Position
2. Degrees/endorsements held
3. Years as administrator
4. Years in district
5. Years in current position
6. Describe the school district for me
7. What is your average or typical student like?
8. How would you characterize parental support for your students?
9. Describe your intervention process/structure/curriculum
10. What assessments do you use to measure growth and to progress monitor?
11. How do you use the above collected data?
12. How much freedom do teachers have in designing the reading curriculum, lessons?
13. What would you suggest leads to your reading comprehension score success?
14. How and why did you become a teacher? Administrator?
15. If you had the power to change anything about education what would you change?
16. What else would you like to tell me, or is there anything else I should know before I leave?